

1 UNITED STATES DISTRICT COURT EASTERN
DISTRICT OF NEW YORK
2 -----X
3 ROBERT A. FALISE, et al., : 99-CV-7392 (JBW)
:
4 Plaintiffs, : U.S. Courthouse v.
: Brooklyn, New York
5 : THE AMERICAN TOBACCO
:
6 COMPANY, et al., : TRANSCRIPT OF TRIAL
:
: December 28, 2000
7 Defendants. : 9:20 a.m.-----

-----X
8 BEFORE:
9 THE HONORABLE JACK B. WEINSTEIN U.S.D.J.
10 and a Jury
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page 3446

page 3447

1 (Jury not present.)

2 THE COURT: Good morning. Sorry I'm late. I was
3 working and I lost track of the time. Such a fascinating
4 subject.

5 Sit down. What do you want to take up this morning?

6 MR. WESTBROOK: Your Honor, we have a number of
7 document issues.

8 THE COURT: All right.

9 MR. WESTBROOK: Defendants have disclosed a document
10 GK100307 be admitted into evidence today. It is a 1997
11 petition to the Food and Drug Administration by something
12 called The Center for Science in the Public Interest -- not
13 using it, okay.

14 THE COURT: What was that, I'm sorry?

15 MR. WESTBROOK: They're not using --

16 THE COURT: Okay, next.

17 MR. WESTBROOK: -- that.

18 Next, your Honor, is a document, a 244-page medical
19 article from the year 2000 that they said they wanted to admit
20 into evidence. We don't see any basis for that. It is
21 GN100684.

22 THE COURT: As I understand it, these articles
23 themselves wouldn't be admitted to show to the jury. You can
24 have your experts quote from it and use it, but normally the
25 article doesn't go into the jury room.

page 3447

page 3448

1 MR. BERNICK: Certain of these are -- they don't fall
2 into any one easy category. There are certain articles that
3 are important not just because they are learned treatises, but
4 because the fact of what they say.

5 A claim has been made we knew things that we didn't
6 disclose, that were a secret. The claim is we distorted the
7 body of public knowledge. The fact of medical articles saying
8 externally exactly what we were saying internally clearly
9 ought to come before the jury. They have to have them. They
10 have to be published to them and they have to know about them
11 for purposes of deliberations.

12 THE COURT: You can do it while the witness is here
13 without putting in the whole --
14 MR. BERNICK: What I was going to suggest --
15 THE COURT: -- matter.
16 MR. BERNICK: There are two issues. One, I recall
17 the Court's ruling we can show the witness here and that's
18 fine. We also -- this particular article we only read from a
19 little bit on and we would want to publish that to the jury
20 just as the plaintiffs published our documents.
21 THE COURT: It is perfectly all right. I don't want
22 that whole big one inch article in.
23 MR. BERNICK: No. We will clearly not be doing that.
24 THE COURT: All right. When you publish it mark that
25 portion as an exhibit excerpted from the article and that will
page 3448
page 3449

1 suffice.
2 MR. WESTBROOK: Your Honor is marking for the record,
3 but we object to any portion of learned treatises to go as an
4 exhibit to the jury. I don't think the rules provide for
5 that. They provide they can be quoted from. New rule on
6 expert reliance materials now says unless the Court finds
7 there's some compelling reason for the reliance material to be
8 even displayed to the jury it should not be.
9 THE COURT: I find there is a compelling reason in
10 this case in view of the complex claims and denials which have
11 already been put forward to the jury.
12 MR. WESTBROOK: Your Honor, next we have a request.
13 We had received a list of exhibits that defendants told us
14 they're going to use tomorrow with Mr. McAllister. There are
15 over 150 exhibits on this list. There's no way, your Honor,
16 we can effectively deal with 150 exhibits for a fact witness
17 and we think we need some relief from that.
18 MR. MANSFIELD: First, Dr. McAllister will be
19 testifying both as an expert as well as a fact witness. I
20 haven't seen your objections. If you have specific
21 objections, why don't you tell us what they are.
22 THE COURT: There is objection to the bulk. Why are
23 you putting in so many exhibits?
24 MR. MANSFIELD: I suspect we will be able to cut it
25 down.
page 3449
page 3450

1 THE COURT: When?
2 MR. MANSFIELD: Sometime by the end of the day today.
3 THE COURT: They have to go over these things to
4 prepare. It is not fair, just as you complained, to hit them
5 with 150 exhibits. When are they supposed to read them?
6 MR. MANSFIELD: These have all been disclosed
7 before. These aren't new exhibits. Some of it because he is
8 an expert --
9 THE COURT: See if you can cut it down in a
10 reasonable way.
11 MR. MANSFIELD: I will.
12 MR. WESTBROOK: Your Honor, next we have
13 Dr. Carchman, who I believe is the next witness, the Philip
14 Morris witness, and the defendants have disclosed a number of
15 exhibits. We have checked them, your Honor, and a large
16 number of those exhibits were not on Dr. Carchman's reliance
17 list when we took his deposition. We object to them using the
18 exhibits that we did not have a chance to ask Dr. Carchman
19 about at his deposition. I have a list that were not on the
20 reliance list and we object to the use.

21 MR. LOMBARDI: I would be happy to look at the list.
22 It may be we're not using them, your Honor.
23 THE COURT: Try to work it out.
24 MR. WESTBROOK: Next, your Honor, the defendants have
25 disclosed with Dr. Carchman an exhibit which is a September
page 3450
page 3451

1 10th, 1998 letter from somebody named Ted Sanders to Peter and
2 we don't see how they intend to get this into evidence. I
3 think Ted Sanders is somebody from Philip Morris in Europe
4 writing a couple of years ago to Dr. Peter Lee. We don't see
5 this comes in under any exception to the hearsay rule or any
6 way they can get this document into evidence.

7 MR. LOMBARDI: We are not using that one, your
8 Honor.

9 MR. WESTBROOK: Your Honor, the demonstrative
10 exhibits for Dr. Carchman came in just before -- revisions
11 just after midnight. We would ask if the defendants can be
12 more prompt.

13 THE COURT: That would certainly be helpful.

14 MR. WESTBROOK: We have, your Honor, outstanding
15 documents admitted with Dr. Townsend. There was confusion on
16 the numbers. We are pulling copies of the Townsend exhibits
17 and he will look at them.

18 THE COURT: Give me the list as soon as you can so we
19 can get them in the record. We are beginning to wind down.
20 We will need to prepare for the jury a full list with a short
21 description and that's going to be quite time consuming in
22 light of the number of the documents and the objection as to
23 whether they have or have not been admitted.

24 MR. WESTBROOK: We also have received this morning
25 from the defendants a list of exhibits used so far with
page 3451

page 3452

1 Dr. Appleton and a list of exhibits they used yesterday with
2 Mr. Brookes. We will take a look at those lists and see if
3 there are objections to those. We will also get them a copy
4 of our list of documents that we used with Mr. Brookes.

5 THE COURT: Good.

6 MR. BERNICK: Your Honor, we would like to have
7 marked as court exhibits, I think we are on number 36, the
8 exhibits used with Mr. Brookes on December 27th.

9 THE COURT: Are they acceptable to the --

10 MR. WESTBROOK: That's the list I have just gotten.
11 We need to take a look. We don't mind marking the list, but
12 we need to look at it.

13 THE COURT: All right.

14 MR. BERNICK: Then, Exhibit 37, your Honor, would be
15 the list of the exhibits used with Appleton so far.

16 The third, we asked for this previously but we
17 haven't received a response, we are asking for these to be
18 listed as a separate -- these were materials used with
19 Macchiarola and Hanson during the plaintiff's case.

20 Now --

21 THE COURT: 36, 37 and 38, I will mark these.
22 Plaintiffs will have to check these so we can --

23 MR. BERNICK: They've got a copy.

24 THE COURT: Okay. Here, you hold it and return it to
25 me when it's corrected, please.

page 3452

page 3453

1 MR. BERNICK: Okay.

2 Your Honor, I would only ask, I understand people are

3 still pulling things, but I've got the witness on the stand
4 and I think it would be better if we could -- it is not an
5 overwhelming list, if we could find out if there are problems
6 with these exhibits so they don't get carried over for day to
7 day. If we have a problem with the witness we can solve the
8 problem.

9 THE COURT: Certainly would be helpful. Do we have
10 anything else?

11 (No response.)

12 THE COURT: We will start just as soon as we have a
13 full jury. See what we have in the jury room.

14 (Recess taken.)

15 THE COURT: Have the witness take the stand, please.
16 Close that door, one of you, please.

17 (The witness resumes the stand.)

18 (The jury enters the courtroom.)

19 THE COURT: Good morning, everybody.

20 JURORS: Good morning.

21 THE COURT: Again, thanks for coming in so promptly.

22 Sit down, sir. You are still under oath

23 S C O T T A P P L E T O N , called as the witness
24 herein, having been previously duly sworn, testified further
25 as follows:

page 3453

page 3454

1 THE COURT: Proceed, please.

2 MR. BERNICK: May I proceed, your Honor?

3 THE COURT: Yes.

4 DIRECT EXAMINATION (Cont.'d)

5 BY MR. BERNICK:

6 Q. Good morning, Dr. Appleton.

7 A. Good morning.

8 MR. BERNICK: Good morning, ladies and gentlemen.

9 JURORS: Good morning.

10 Q. One more set of studies. Let's talk about the Ames
11 test. Could you describe for the jury what the Ames test is?

12 A. Yes. The Ames test is an in vitro test. This is a
13 test --

14 Q. Keep your voice up, Scott.

15 A. Keep it up?

16 Q. Up, yes.

17 A. The Ames test is an in vitro test which means it is not
18 done in whole animals. What it is is a test that's conducted
19 in bacteria and it is a test to measure mutagenic effects or
20 the effects on a chemical substance to be able to cause
21 mutations in bacteria. So, what's done is we have bacteria
22 that are growing in a little glass dish. You put the test
23 article in the glass dish and after some period of time
24 measure the extent to which the bacteria change through a
25 mutation process.

page 3454

page 3455

1 Q. Okay. Do you have a time line that you prepared? Is
2 this part of the time line that was previously prepared with
3 regard to in vitro testing?

4 A. Yes.

5 Q. And that previously was DEM001452, which we'll just
6 simply redisplay. This is another in vitro test?

7 THE COURT: This number is, I'm sorry?

8 MR. BERNICK: DEM001452. It was previously shown to
9 the jury.

10 THE COURT: Yes.

11 Q. You talked earlier about the ciliastasis kind of work and

12 is it correct that the Ames test was developed later on?
13 A. Yes, it was.
14 Q. Who developed the Ames test? Is that something the
15 tobacco industry developed or did somebody else develop it?
16 A. No. It is developed by an investigator in the
17 university, his name is Bruce Ames, and the test was named
18 after him.
19 Q. Was the Ames test considered and ultimately used in the
20 course of doing research into modifying cigarettes?
21 A. Yes, it was.
22 Q. Prior to the time that that took place, did the Surgeon
23 General have occasion to comment on how much the Ames test
24 could really tell you?
25 A. Yes.

page 3455

page 3456

1 Q. Showing you TG000237 at page 37, this is the 1981 Surgeon
2 General's report. I want to display for the jury a section
3 and have you comment on it. It says Ames test activity,
4 however, does not predict the activity of fractions in the
5 mouse skin carcinogenesis assay. Fractions of smoke
6 condensate that show activity as complete carcinogens or in a
7 promotion assay that would detect skin carcinogens as well as
8 tumor promoters are not correspondingly active in the Ames
9 system. It cannot be determined whether the unidentified
10 mutagens in cigarette smoke are an important cause of lung
11 cancer in humans; however, added exposure to any tumor
12 initiators probably carries an incremental risk of cancer.

13 It is a lot of language, Dr. Appleton. Can you try
14 to translate it for us? What does it tell us about the Ames
15 test?

16 A. They are basically saying the Ames test can predict
17 substances that are mutagenic in bacteria, but there doesn't
18 seem to be a correlation between substances that do that and
19 substances that produce cancer in mouse skin. Since the
20 correlation between the bacterial test and mouse skin test is
21 uncertain, they are also suggesting there may be questions as
22 to how relevant the Ames test results are to human lung
23 cancer.

24 Q. Is that the essential question of toxicology, does the
25 lab relate to people?

page 3456

page 3457

1 A. That is the concern that's being discussed.

2 THE COURT: Excuse me for a moment. You'll notice,
3 ladies and gentlemen, that a number of these reports and
4 things have these little numbers next to them in parentheses.
5 Those, I believe, and the Doctor will correct me, are
6 references to scientific studies. They are footnotes which
7 are available.

8 I'm not permitting the general scientific studies as
9 a whole to come before you because they're too complicated and
10 they have a lot of unnecessary confusing information that
11 won't help you particularly, but I am allowing little pieces
12 of some of the material to come in through experts and the
13 like.

14 So, there will be references to some of these studies
15 and you'll have a little piece of it, but you won't have the
16 whole study to go in with you as an exhibit.

17 MR. BERNICK: Thank you, your Honor.

18 BY MR. BERNICK:

19 Q. Were there also -- we talked about what the Surgeon
20 General said. Were there similar comments made internally,

21 that is, as the research started to take place at Brown &
22 Williamson and at BATCO, were there similar -- was there
23 similar recognition of these limits on the Ames test?

24 A. Yes, there was.

25 Q. Showing you GN300009. Is this a research report

page 3457

page 3458

1 regarding mutagenic safety evaluation at R&D using the
2 mutagenicity test?

3 A. Yes.

4 Q. If we turn to page two it says the Ames test is not --
5 underlined "not" -- an infallible guide to cancer potential
6 but nonetheless -- or nevertheless it is viewed by some
7 advisory regulatory bodies as being an early warning that
8 further testing is required.

9 It then says further on at page thirty: In talking
10 about the doses involved, it can clearly be seen that these
11 levels can in no way be used to set safe levels of exposure in
12 man.

13 Again, is that consistent or inconsistent with the
14 kinds of limitations that the Surgeon General was talking
15 about?

16 A. It is pointing out the same types of limitations.

17 Q. Now, back on our little time line, you have mentioned
18 here that after Dr. Ames -- remember we had to remind
19 ourselves that the red is the external literature. Dr. Ames
20 developed the test outside the tobacco industry?

21 A. That's correct.

22 Q. You have down here Project Rio (Ames). Was that the name
23 of the Ames research project that ultimately was undertaken at
24 BATCO?

25 A. Yes. Project Rio was the name of a project designed to

page 3458

page 3459

1 evaluate various commercial cigarette products and how they
2 rated in the Ames assay. In other words, what would be the
3 level of activity measured by the test and, also, to try to
4 determine cigarette's design characteristics that might
5 influence either increased or decreased activity in the test.

6 Q. The jury has seen a couple of times this memo in 1984
7 from Mr. Wells which is Plaintiff's Exhibit 90. That's the
8 one that talks about direct lawyer involvement as needed in
9 B.A.T. activities. It also, though, notes conclusions about
10 recommendations and restructuring of B.A.T. statements and
11 programs can only be made after a comprehensive review of the
12 facts. The memo talks about the Ames testing and Project Rio.

13 Did Project Rio, even after this memo, did Project
14 Rio run to completion, was the research in fact done?

15 A. Yes, the work was done and the results were written up in
16 a report.

17 Q. Have you taken a look to see whether there's any
18 indication somehow the research was terminated or truncated or
19 directed by lawyers?

20 A. Yes, I have.

21 Q. Did you find any evidence of that?

22 A. No, I haven't.

23 Q. Have you, in the course of your own duties, have you
24 discussed and dealt with the research director for the Project
25 Rio project?

page 3459

page 3460

1 A. Yes, I've talked to the actual scientist who ran the
2 project and did the test.

3 Q. Who is that?
4 A. Ian Massey.
5 MR. BERNICK: Your Honor, we would offer -- we don't
6 have to take the time for the jury in displaying this --
7 Exhibits GM300007, GM --
8 THE COURT: Admitted.
9 MR. BERNICK: GM000046, TG000018, TG000017 and
10 TG000016 as being the research reports resulting from the Ames
11 testing.
12 THE COURT: Admitted.
13 Q. Is the Ames test still being used today, Dr. Appleton?
14 A. Yes, it is.
15 Q. Has the Ames test yielded definitive data regarding the
16 relationship between cigarette designs and human disease?
17 A. No, it hasn't.
18 Q. I'll put a question mark because we are still working on
19 it, correct?
20 A. That's correct.
21 Q. Is the Ames test still widely used?
22 A. Yes, it is.
23 Q. Now, we have been through a series of different kinds of
24 tests here, Dr. Appleton. In the testing programs I think we
25 talked about the standard period of time from the early

page 3460

page 3461

1 sixties all the way through the end of the 1980s; would that
2 be fair?
3 A. Yes.
4 Q. About 25 years of work?
5 A. Approximately.
6 Q. The jury has seen mention made of documents that were
7 written in the late 1980s. This is 22 -- excuse me, 21292,
8 Plaintiff's Exhibit 21292 and Plaintiff's Exhibit 20915.
9 20915 was the note from Mr. Sheehy in December of '86 to a
10 Mr. Crawford discussing -- these memos discuss safer cigarette
11 research, objections to it, issues relating to it. The jury
12 has seen the stuff in the late 1980s.
13 Have you made inquiry to determine how the scientists
14 themselves were looking at this whole 25-year effort by the
15 end of the 1980s?
16 A. Yes, I have.
17 MR. WESTBROOK: Objection, your Honor. He wasn't
18 there until '91. He can't be an expert to go back and talk to
19 people. He is a toxicologist.
20 MR. BERNICK: I will clarify.
21 Q. Were there scientific reports that were written -- we are
22 talking about after 25 years, I will run out of room here.
23 Earliest lab research we have been talking about goes
24 back to what, the early 1960s?
25 A. Yes.

page 3461

page 3462

1 Q. We're talking now by the end of the 1980s were there
2 actual scientific research reports or analyses done by the
3 scientists themselves about what had been learned as a result
4 of all this work that had taken place after all these years?
5 A. Yes. Generally, when they conducted research, reports
6 were prepared and generated and we have those reports.
7 Q. Did the reports comment on whether any consistent result
8 had been achieved?
9 A. Some did. Sometimes they did.
10 Q. From all these different tests?
11 A. Yes. Some of them did comment on that.

12 Q. Was a report prepared called a review of biological
13 activity of smoke, R&D 2177, dated November 1, 1990?
14 A. Yes.
15 Q. Does that report talk about the consistency or
16 inconsistency that is what you can learn from all this
17 information?
18 A. Generally it is a review of what has been learned in the
19 past 25 or 30 years, but it does provide information that
20 shows the inconsistencies in some cases, results in various
21 types of tests.

22 MR. BERNICK: We offer GJ000241.

23 THE COURT: Admitted.

24 Q. Have you prepared a chart, DEM012070, that kind of gives
25 a review of what's happened as a result of a lot of this

page 3462

page 3463

1 different testing?

2 A. Yes.

3 Q. Could you just explain to the jury what it is that this
4 chart shows?

5 A. Sure. Well, the left column here -- I don't know if
6 there is a way to point. It says Burley.

7 THE COURT: You can get down and use the main chart.

8 A. This column here refers to different cigarette design
9 parameters that were evaluated. For example, here there's a
10 comparison of Burley tobacco versus flue-cured tobacco. One
11 of the things that was done is the cigarettes were made with
12 only Burley tobacco and another situation cigarettes were made
13 containing flue-cured tobacco to see if one type seemed to
14 have more biological activity in a particular test than
15 another. We looked at taking the effects of larger or smaller
16 puff volumes. This is an ingredient not for flavor but an
17 additive that it was hoped would reduce biological activity of
18 smoke by reducing compounds, you may have heard of them, they
19 are called polycyclkaromatic hydrocarbons or PAHs.

20 (Fire alarm sounds.)

21 A. This is a tobacco substitute. It is a material that was
22 made of basically inert material to be added to the blend to
23 dilute the blend and reduce the amount of tobacco smoke
24 related to constituents in the hopes to make safer
25 cigarettes.

page 3463

page 3464

1 THE COURT: Sorry. Open that door, please.

2 (Whereupon, a recess was taken.)

3 (Continued on the following page.)

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page 3464

page 3465

1 (Jury in at 10:55 a.m.)
2 (Witness resumes the stand.)

3 CROSS EXAMINATION

4 (Cont'd) BY MR. BERNICK:

5 THE COURT: Proceed, please.

6 Q. You have a hard act to follow here, Dr. Appleton.

7 I think you were in the middle of explaining this
8 chart and talking about whether these different kind of test
9 procedures gave consistent results and maybe if you can finish
10 the answer that you were giving, we can push on.

11 A. As I was indicating, these are some cigarette design
12 variables that were being evaluated. This is the typical
13 approach that we took when we tried to do cigarette design
14 research.

15 One of the first comparisons is early research, and
16 this is Burley as opposed to flu-cured tobacco. What we
17 looked at was when you had high levels of Burley to flu-cured
18 and these are 2 types of cigarettes, in the Ames test, Burley
19 tobacco produces had higher activity and hence the hopes were
20 at least in the early days that the Ames test was predictive
21 of a cancer elimination potential, that it may not be good,
22 you may be better using flu-cured because Burley increases the
23 activity in the Ames test. However, in the mouse skin
24 painting test, Burley tobacco was actually associated with
25 lower activity, which is obviously not comparable to the Ames

page 3465

page 3466

1 test. Then in the inhalation test, it was also associated
2 with lower activity. This would be an example. And then just
3 looking at flu-cured, it was the flip side of what you would
4 expect, it was higher. Flu-cured tobacco was associated with
5 lower activity in the Ames test but flu-cured tobacco was
6 associated with higher activity in the mouse skin painting
7 test and in the inhalation test.

8 So it was guiding us as to what we should do. Should
9 add more Burley or flu-cured? It's not completely clear
10 because you have different results saying different things
11 from different tests. It's also not clear as far as human
12 disease is concerned.

13 Just moving on, some tests were conducted. One of
14 the first tests in the Janus products was the effect of puffer
15 volume. You could take a small puff or a large puff, and
16 these tests contrasted large versus small puff and the big
17 puff compared to small puff was associated with lower
18 activity. If you generate smoke using large puffs, you get
19 less activity in the Ames and less activity in the mouse skin
20 painting test but you actually got more in the inhalation
21 test. And the opposite was true, of course, of small versus
22 large puffs.

23 Magnesium nitrate is a chemical substance that
24 according to the chemists should be able to eliminate some of
25 the chemicals that were believed to be responsible for

page 3466

page 3467

1 carcinogenic activity in cigarettes. And this is particularly
2 the class of chemicals referred to as polycyclararomatic

3 hydrocarbons, and the hope was that if you add this additive
4 to cigarette smoke, it will reduce these chemicals. You get
5 less activity in the mouse skin painting test, indeed you did,
6 but the problem was that this also results in an increase in
7 activity in the Ames test.

8 So again, as far as trying to determine what to do as
9 a tobacco company to reduce the activity of cigarettes, we
10 didn't get clear guidance from this sort of line of research
11 as well.

12 Then finally, the Cytrel, which is not in view.
13 Cytrel was a tobacco substitute made of basically inert
14 materials that don't burn and the thought was if you could add
15 some of this to the blend, add to the tobacco, you might be
16 able to bring down the levels of chemicals and biological
17 activity in the smoke. And in fact in the inhalation test you
18 did see less activity when you had cigarettes with higher
19 blends of Cytrel. But in the mouse skin painting test there
20 was really no difference as denoted by this orange bar that is
21 midway up. It means that their activity was comparable. So
22 in one test it showed maybe a benefit, in another test it
23 showed maybe not a benefit. So again, it wasn't completely
24 clear.

25 This wasn't giving us a clear direction what to do.

page 3467

page 3468

1 Q. While you are still up there, as a result of all that you
2 have gone through here, have you prepared a chart that helps
3 reflect the basic problem, problems that emerged as a result
4 of the biological testing process?

5 A. Yes.

6 Q. Showing you DDM012039.

7 Is this a chart that you assembled that helps put
8 into perspective the basic problems that resulted from all of
9 this work?

10 A. Yes, let me kind of walk through the chart so everyone
11 understands what I'm trying to depict here.

12 Here in the yellow box designated cigarettes design
13 parameters X, Y, Z, that could be different types of tobacco,
14 different types of filters, different types of papers, you can
15 vary the porosity of the paper, how porous the paper is, it
16 could be different cuts, widths of tobacco, different
17 circumference of a cigarette, fat compared to skinny, moist
18 content. A whole bunch of design variables that we would
19 typically evaluate to see if they would have any effect on the
20 tests that we used. So that would in fact be varied but then
21 we had to measure them in something so we had to select a test
22 and some of the ones that we have talked about today that have
23 been prominent in the scientific literature that were then
24 picked up by our company were ciliastasis, mouse skin
25 painting, Ames activities and inhalation. And what I have

page 3468

page 3469

1 here is a question mark because in many cases we didn't know
2 which cigarette design parameter was influencing the outcome
3 of the test, and more importantly, getting down to the
4 mechanistic level, we didn't know which constituent in smoke,
5 which chemicals in smoke were influencing the outcome of the
6 test. If we know we would know what to go after, we have to
7 eliminate this compound. But we frequently didn't so there is
8 a lot of uncertainty here.

9 I also just mentioned some chemicals. It was not at
10 all clear whether a result in this test was comparable to this
11 test or that test so it wasn't clear that these tests were

12 actually relevant to each other because you could then get an
13 opposite result from what you got in this test. So there is
14 always some degree of uncertainty there and there still is.
15 Finally, the ultimate question is this: If you get a
16 response in these tests either up or down, what does it mean
17 as far as human disease is concerned. For example, do we know
18 if we modify a cigarette to get a reduction in ciliastasis
19 activity, does that mean that cigarettes would produce less
20 lung cancer or heart disease in humans? And likewise for the
21 rest of the tests. So what we are dealing with is an area
22 where there is a lot have uncertainty in the process that we
23 have to go through.

24 Q. Do the problems and issues persist today?

25 A. Yes, they do.

page 3469

page 3470

1 Q. There has been a lot of discussion about mechanism.

2 Do you need to know the mechanism of how cigarettes
3 cause disease? Is that something that is important in terms
4 of actually helping to improve cigarettes and reduce the risk
5 from cigarettes? Does mechanism make a difference?

6 A. Of course it makes a difference if we knew the actual
7 mechanism. For example, if a particular compound in smoke
8 triggered disease in humans through some specific mechanism,
9 we would know exactly what it is that we have to target, what
10 we have to go after, eliminate or modify. We don't know
11 that. Since we don't, we have to rely on these tests which
12 are indirect measures which may or may not be predictive but
13 the best we have, so this is what we pursue.

14 Q. These kinds of issues and these kinds of problems that
15 you've talked about that surfaced from 25 years of research,
16 were these the kinds of things that were being discussed in
17 the period of time of the review report in 1990?

18 A. Yes, they were.

19 Q. There has also been, as we know from the documents that
20 have been shown, there was discussion about what kind of
21 research should continue to be done after this period of
22 time.

23 What inquiry, if any, did you make as to whether this
24 research with all of its problems, whether this research
25 nonetheless was continued?

page 3470

page 3471

1 A. Well, again, it's the same type of inquiry that I made in
2 the earlier years. I looked at the documents, looked at the
3 research reports that reflect the research that was done and I
4 talked to scientists who were doing it in the early days and
5 still are doing it today.

6 Q. What did you determine?

7 A. Research has continued. We still do research in this
8 area.

9 Q. I'm showing you DEM012038. Is this a chart that talks
10 about the extent to which research continued even after all
11 these memos were written and all these issues were raised in
12 the 1985 to 1990 time period?

13 A. Yes.

14 Q. What does this reflect about whether research in fact did
15 continue?

16 A. Well, this chart depicts various projects that have
17 occurred, and in many cases are still ongoing to this day in
18 the various BAT companies.

19 I don't know if you want me to explain each
20 particular.

21 Q. I think the jury is probably familiar with the first two
22 lines, that is the internal inhalation and mouse skin painting
23 work in Reo.

24 Why don't you briefly talk about the last 3 lines.

25 A. Project EMN stands for eliminate, modify or neutralize.

page 3471

page 3472

1 It's referring to smoke constituents that are thought to be
2 important or relevant to human disease or biological activity.

3 That project which was in the late to mid-seventies, or I'm
4 sorry, eighties, evolved into a project which is called
5 Project Day which actually the project began in Southampton,
6 moved to Imperial Tobacco in Canada, then in the last 5 years,
7 some of the project has also moved to Brown & Williamson in
8 Macon, Georgia.

9 So the project actually resides in several locations
10 right now. The main objective of this project was to process
11 tobacco in a way to remove components from tobacco leaf that
12 are thought to give rise to active compounds when burned, in
13 this particular case, compounds that are thought to be
14 responsible for Ames activity.

15 So the project was all about processing tobacco to
16 remove certain classes of compounds, in this case proteins
17 that when burned give rise to substances that increase
18 activity in the Ames test. So again, it's an attempt to
19 reduce the Ames activity of tobacco.

20 Q. Air Bus?

21 A. Air Bus was a project, it employed a different type of
22 strategy for reducing risks of cigarettes. The strategy of
23 Air bus was to -- the problem with tobacco is when you burn
24 tobacco, you generate thousands of compounds, some of which
25 are biologically active. The thought is if you can simply

page 3472

page 3473

1 heat tobacco to generate flavors, a noncombustion product at a
2 lower temperature, then a lot of the compounds that are
3 thought to be related to smoking and health wouldn't be
4 formed.

5 So I referred to it as a heat rather than burn
6 technology and that's what this project is about. Heat rather
7 than burn. It's also gone through a lot of evolution where
8 it's moved, bits and pieces have moved from one of the
9 technical centers within the BAT companies to other technical
10 centers.

11 Q. Green Dot?

12 A. Green Dot was an attempt to reduce the activity of
13 cigarettes and reduce the complexity of tobacco smoke
14 employing more conventional type of cigarettes. So you could
15 select certain tobaccos that had lower nitrogen content which
16 for example would show lower results in the Ames test, would
17 result in lower levels of certain constituents that are
18 thought to be important in human disease, particularly
19 nitrogen-containing constituents.

20 There was an element of altering the nicotine to tar
21 ratio in the early days of that project and again, that
22 project like others has evolved into other projects which are
23 depicted here, NATO, Wausau, ultimately, tar modification and
24 Baltic, which are focused on modifying smoke complexity by
25 again adding diluent to the blend, adding substances to the

page 3473

page 3474

1 blend which do not burn and therefore essentially cut the
2 tobacco with non-tobacco materials and reduce the overall

3 complexity of the smoke and the biological activity of the
4 CTR.
5 Q. Dr. Appleton, switching to something that you mentioned
6 at the outset of your direct examination.
7 Can you take a look at certain claims that have been
8 made by Dr. Jeffrey Wigand in the context of his statements in
9 litigation.

10 A. Yes, I have.

11 THE COURT: Can you all see that? I think some of
12 the jurors are having difficulty.

13 MR. BERNICK: All right.

14 Is that better?

15 We'll mark this as Appleton 7.

16 I think you indicated previously that Dr. Wigand was
17 your boss?

18 A. That's correct.

19 Q. I'd like to go through some of the claims that have been
20 made and get your response to them or your comments with
21 regard to them. And some of them I think will go pretty
22 quickly. Others will take more time.

23 We first had a claim from Dr. Wigand going back to
24 1995 and this has been shown to the jury in testimony here but
25 just to get a point of reference, the testimony in response to
page 3474

page 3475

1 questions at page 71 of his original deposition:

2 "Question: At any time did you learn that Brown &
3 Williamson was using a form of rat poison in pipe tobacco?

4 "Answer: Yes.

5 MR. WESTBROOK: Objection, your Honor. If he would
6 like to show the witness what Dr. Wigand said at trial, but
7 this is from an earlier 1995 deposition. I have no objection
8 to the trial transcript but it doesn't have Dr. Wigand's
9 comments.

10 MR. BERNICK: This is what was shown to the jury in
11 this trial in cross-examination of Dr. Wigand. This is
12 verbatim. Indeed, we had it on videotape.

13 MR. WESTBROOK: This is not the transcript in the
14 case.

15 MR. BERNICK: The transcript in this case doesn't
16 reflect the videotape. This is what was shown in the
17 videotape.

18 THE COURT: It was in your submission. I'll allow
19 it.

20 Q. "Question: What form of rat poison is that?

21 "Answer: It's a compound called coumarin. It was
22 contained in the pipe tobacco.

23 I just want to know, Dr. Appleton, was coumarin a rat
24 poison that was used in pipe tobacco?

25 A. Coumarin is not a rat poison. Coumarin is a flavor

page 3475

page 3476

1 ingredient. It occurs naturally in a lot of things,
2 particularly cut hay which is the characteristic fragrance.
3 It has been used as a fragrance in flavoring material in a
4 variety of things including pipe tobacco but it's not a rat
5 poison.

6 Q. Is the claim that coumarin was a rat poison false?

7 A. Certainly mistaken. False suggests intent and I don't
8 know intent but I think that it's a mistake.

9 Q. There was then a claim, this is at page 1163 of the
10 transcript in this case, where Mr. Wigand, Dr. Wigand then
11 went on to say: Didn't you further say there is no truth --

12 THE COURT: No, that is a question.
13 MR. BERNICK: Page 1163.
14 THE COURT: That's a question, not what he said.
15 Q. Line 10, "Question: Didn't you further say there is
16 no truth or data to substantiate the fact that coumarin is
17 poisonous? Didn't you admit that in 1966?

18 THE COURT: 1996.

19 Q. 1996.

20 Then the answer, line 13, from Dr. Wigand is: No, I
21 think I said -- I remember what I said then is that coumarin
22 was shown in the National Toxicology Program to be a lung
23 specific carcinogen. Do you see that statement there?

24 A. Yes, I do.

25 Q. Then again there is something that we have reproduced

page 3476

page 3477

1 here, the claim that coumarin was shown by NTP, the National
2 Toxicology Program, to be a lung specific carcinogen and
3 represented by the NTP to be a hazard to humans.

4 Did Brown & Williamson have a toxicological
5 assessment in the use of coumarin in pipe tobacco?

6 A. Yes, we asked an outside expert in toxicology to review
7 the health effects of coumarin and give an opinion as to
8 whether or not it was a material that would be safe to add to
9 pipe tobacco.

10 Q. Showing you GI000174. Is this a copy of the assessment
11 that was made Brown & Williamson?

12 A. Yes.

13 MR. BERNICK: We offer it, your Honor.

14 THE COURT: No objection. Admitted.

15 (So marked Defendant's Exhibit GI000174 in evidence.)

16 Q. When you have a toxicological assessment, as a
17 toxicologist, Dr. Appleton, is it important to be known what
18 dose or what amount of the material is being used?

19 A. Absolutely. What the toxicologists all say is that the
20 dose makes the poison.

21 Q. You have to raise your voice.

22 A. Absolutely. The main tenant of toxicology that is the
23 dose makes the poison.

24 Q. So something might be toxic in a high dose not but not a
25 low dose?

page 3477

page 3478

1 A. Table salt could be lethal at a high dose and substances
2 that are be considered toxic at high doses could not be if you
3 get a small amount of them.

4 Q. Dr. Nigh in this assessment at page 15 says: Thus,
5 intake of coumarin from smoking pipe tobacco containing 1,700
6 parts per million coumarin should have no adverse effect on
7 human health.

8 Was that the conclusion that he reached?

9 A. Yes.

10 Q. Is that a conclusion that works with the level or dose of
11 coumarin that was felt to be actually experienced by the
12 smoker?

13 A. Yes, that was a level that would potentially be used in
14 pipe tobacco.

15 Q. Has there ever been any demonstration to your knowledge
16 that at that level coumarin is a lung specific carcinogen?

17 A. No.

18 Q. Is there or was there a study that was done on mice at
19 much higher levels that indicated at very high levels in mice
20 that coumarin could be a carcinogen?

21 A. Yes, the National Toxicology Program conducts what is
22 called chronic carcinogenicity bioassay in both rats and mice
23 and they typically run these tests. It was called a maximum
24 tolerated dose, which is the highest dose that you can give an
25 animal for his lifetime and still allow him to survive. Under

page 3478

page 3479

1 the conditions in that test, rats who received the coumarin
2 did not produce an increase of lung tumors, but in mice, it
3 did.

4 Q. Was that the kind of dose that you have with a smoker
5 smoking pipe tobacco?

6 A. No, it's much larger.

7 Q. Has there ever been a study through the National
8 Toxicology Program showing that coumarin is a lung specific
9 carcinogen at the levels experienced in pipe tobacco?

10 A. No.

11 Q. With all of the data, including that particular study
12 that you made reference to, has the National Toxicology
13 Program actually concluded that coumarin in pipe tobacco is a
14 lung specific carcinogen and hazard to people?

15 A. No, it has not, the National Toxicology Program has many
16 functions, one of which is to do these animal tests that I
17 just mentioned but they also have another function where they
18 generate an annual report, NTP, an annual record with respect
19 to carcinogens. In that report that we take all the evidence
20 available from both animal studies and human studies and make
21 determinations about which compounds are thought to be or
22 known to be carcinogens, known or suspected to be in that
23 report. They have list of known carcinogens in one section
24 and suspected human carcinogens in another section. Coumarin
25 doesn't appear in any of those sections. So NTP has evaluated

page 3479

page 3480

1 every substance that they are aware of, including substances
2 that they have tested in their own animal studies, but do not
3 clue coumarin in any of these classifications.

4 Q. Did you do a web site search before you came in and
5 testified to confirm that?

6 A. Yes, I'm familiar with the NTP annual reports anyway and
7 I have them in my office but I did do a web site search, they
8 have a web site where they list all the substances that they
9 deem or judge to be human carcinogens or suspect to be human
10 carcinogens and coumarin isn't on any of those lists.

11 Q. Has coumarin been shown by the NTP to be a lung specific
12 carcinogen in people and a hazard to people?

13 A. No.

14 Q. A further claim was made by Dr. Wigand and shown to the
15 jury in this case regarding acetaldehyde. This is
16 specifically what was shown by the video.

17 Line 19: Did Brown & Williamson to your knowledge
18 use this acetaldehyde knowingly in cigarettes to enhance the
19 effects of nicotine on the smoker?

20 There is an objection and the ultimate answer is:

21 "Answer: Yes, sir, they did.

22 "Question: Acetaldehyde?

23 "Answer: Acetaldehyde was an additive that was
24 used.

25 "Question: Additive that was used to boost nicotine

page 3480

page 3481

1 effect, is that correct?

2 "Answer: Acetaldehyde enhances the synergistic

3 effect of nicotine and physiological effect. It is also well
4 documented outside the tobacco industry.

5 That testimony was read to the jury in this case,
6 testimony originally given in Mississippi.

7 Let's talk a little bit about acetaldehyde.

8 First of all, let's talk about the addition of
9 acetaldehyde.

10 Has Brown & Williamson ever to your knowledge taken
11 acetaldehyde as a compound or other material and said okay, we
12 have to add acetaldehyde to our cigarettes, has that ever
13 happened to your knowledge?

14 A. No.

15 Q. Is acetaldehyde a component that was originally used in
16 certain flavorings?

17 A. Yes.

18 Q. Could you explain to the jury what that means, what a
19 flavoring is and how acetaldehyde came to be used in
20 flavorings at a certain point in time?

21 A. Sure. Acetaldehyde occurs naturally in a whole bunch of
22 different foods, particularly fruits, and it's also an
23 approved ingredient by the FDA to add directly to foods.

24 One of the things we do is we purchase flavorings
25 from flavoring companies. I used to work for a flavor company

page 3481

page 3482

1 and typically you purchase an artificial peach flavor,
2 apricot, tobacco flavor, what have you. And what you are
3 actually purchasing is a mixture prepared by the flavor
4 company. They consider the formula their secret so the
5 product developers don't know actually what the formula is.
6 We do. We are the only people in Brown & Williamson that do
7 because we have to look at all the ingredients to make sure
8 they are acceptable.

9 Prior to 1987 we did purchase some flavor ingredients
10 that did contain acetaldehyde, very, very small levels of
11 acetaldehyde, but they were again components of complex
12 mixtures and their existence was not known to anybody in the
13 company except a very small number of people within the
14 scientific research department.

15 The reason why only we knew about it is the flavor
16 companies considered these to be proprietary trade secrets and
17 they would only give them to us if we signed an agreement
18 saying we would keep this information secret and not share it,
19 particularly with the product development people. So we
20 signed those agreements. We only have the information to
21 perform the regulatory safety status tests. In 1986 and
22 before there were small amounts in mixtures that we purchased.

23 Q. Any toxicological significance to that whatsoever?

24 A. None whatsoever.

25 Q. Anything to do with enhancing nicotine effects?

page 3482

page 3483

1 A. I believe of no way that acetaldehyde could enhance the
2 effect. I've heard the allegations but I know of no way nor
3 do I know of any published research, any published data,
4 studies, evidence, anything in the scientific literature that
5 would suggest acetaldehyde does this effect that has been
6 alleged.

7 Q. During the period of time that Dr. Wigand was at Brown &
8 Williamson, was there even acetaldehyde in the flavoring?

9 A. No, there wasn't. There is no acetaldehyde contained,
10 even in these proprietary flavor mixtures purchased from
11 flavor companies.

12 One other point about acetaldehyde is that
13 acetaldehyde is very a volatile substance. It boils at room
14 temperature, so if I had a glass jar sitting on the table, it
15 would literally be boiling. So it's extremely volatile. Even
16 if it were applied to tobacco, it would never last through the
17 process because it would simply evaporate.

18 Q. Acetaldehyde, there is then a further statement made by
19 Mr. Wigand during the cross-examination. The question was
20 asked at page 1165, I asked him, line 17:

21 "Question: It turns out in your deposition taken
22 later on that you can't actually recall whether acetaldehyde
23 was knowingly added to enhance the effects of nicotine, is
24 that correct?

25 And he answers:

page 3483

page 3484

1 "Answer: Acetaldehyde cannot be knowingly added
2 because at room temperature, it's a gas.

3 Which is something that you just reiterated right
4 here?

5 A. Yes.

6 Q. Then he says: It's added by sugars that form
7 acetaldehyde.

8 Have you looked into that particular allegation?

9 A. Yes, I have.

10 Q. Are there articles that have been published on whether
11 acetaldehyde is increased if there is an increase in sugar
12 content?

13 A. Yes, there have been several studies that have examined
14 that issue and published in the public literature.

15 Q. Showing you Exhibit WS001240. Is this one of the
16 articles that has been published on the effect of natural
17 sugar content of tobacco upon the acetaldehyde concentrations
18 found in cigarette smoke?

19 A. Yes, this is one of the studies.

20 Q. Is this right on point?

21 A. Yes, it's right on point.

22 Q. Let's take a look at the conclusions and summary.

23 THE COURT: Will you give that a number.

24 MR. BERNICK: I read it into the record, WS001240.

25 Q. Quote: All of the evidence obtained in our laboratories

page 3484

page 3485

1 has shown that the total aldehyde yield in tobacco smoke is
2 not related to either sugar content or the equilibrium
3 moisture content of the tobacco.

4 Is that a fair reading of what the conclusion of that
5 article is?

6 A. Yes.

7 Q. Showing WS001239.

8 Is this another article dealing with the same
9 subjects?

10 A. Yes.

11 Q. Who are the authors of this study?

12 A. The first author is Ray Thornton, a BAT Co. employee, and
13 the other is Stuart Massey who currently is with Imperial
14 Tobacco but I'm not sure who he was with in 1975. He may have
15 been with BAT Co.

16 Q. So basically these are BAT scientists who published the
17 results of some research?

18 A. It's the Group Research and Development Center, British
19 American Tobacco Company, Ltd., Southampton, England.

20 Q. Is there a table in this research report that again

21 specifically deals with this allegation by Mr. Wigand?

22 A. Yes, there is.

23 Q. And we basically have, in order to short circuit this,
24 different kinds of cigarettes with more and more sugar?

25 A. We have, right, we have the controlled cigarette which is

page 3485

page 3486

1 all Burley tobacco with no added sugar. And also Burley
2 tobacco is chosen because compared to flu-cured Burley, it has
3 a very, very low natural level of sugar.

4 Q. As more and more sugar is added, the aldehyde content
5 goes up?

6 A. It remains the same. These words here fructose, glucose;
7 are different types of sugars. Fructose is a sugar most
8 commonly found in fruits. Glucose is found in a lot of things
9 but it's the main sugar that your body utilizes as an energy
10 source and a component of table sugar. So what they are doing
11 is adding to the control group Burley, either 7.8 or 10.5
12 percent, which is a very high level, more than you normally
13 use under the column here called volatile aldehydes. There is
14 a whole difference, and acetaldehyde is the main volatile
15 aldehyde in cigarette smoke but here they are measuring them
16 collectively as a group and what it shows is that the
17 addition of sugar seems to have no effect, generally no
18 effect on the level of volatile aldehydes in cigarette smoke.

19 Q. In truth whether the claim is that aldehyde is added
20 through greater sugars, is there any truth to the claim that
21 acetaldehyde is added to enhance nicotine effects?

22 A. Not in my opinion.

23 Q. Let's talk about the next claim.

24 The jury has heard testimony in this court from Dr.
25 Wigand on direct examination of this case at page 1129.

page 3486

page 3487

1 This is direct examination.

2 "Question: Tell the jury how the purpose related to
3 cigarettes and what you use ammonia for?

4 And the answer was:

5 Ammonia is added to tobacco to facilitate a number of
6 things. One is to develop flavor compounds but predominantly
7 to manipulate nicotine and move nicotine around to the various
8 components, change the smoke pH which effects nicotine and to
9 facilitate nicotine from being used from one form to a much
10 more biologically active form which is sometimes referred to
11 as free base.

12 "Question: In layman's terms, what does adding
13 ammonia to a cigarette and its effect on nicotine due to its
14 effect on the smoker?

15 Answer from Dr. Wigand in this case.

16 "Answer: Impact is what we associate with what is
17 called a nicotine rush. The more nicotine available, the more
18 you deliver to the body, the more that could be absorbed. We
19 have captured that with this phrase, this claim ammonia is
20 used to manipulate nicotine, increase nicotine rush.

21 Have you done any analysis in response to Dr.
22 Wigand's claim with regard to ammonia?

23 A. Yes, I have.

24 Q. Showing you Plaintiff's Exhibit 8919, this was the
25 document that Dr. Wigand referred to, Brown & Williamson

page 3487

page 3488

1 Corporation Root Technology, A Handbook For Leaf Blenders and
2 Product Developers, Plaintiff's Exhibit 819, and he showed the

3 jury in particular this page, page 27, smoke analysis of
4 cigarettes containing varying levels of CPCL and EBR, percent
5 and blend. He made reference to the fact that as you increase
6 the percentage of CPCL, the nicotine transfer EFF increases
7 from 14 percent to 16 to 18 percent, that more nicotine comes
8 out.

9 Does that mean that ammonia, adding more CPCL ammonia
10 increases the transfer efficiency of nicotine?

11 A. No.

12 Q. Why not?

13 A. Would it be possible for me to stand up and point to the
14 chart?

15 Q. Go point right to it.

16 A. Typically testing like this is done by smoking cigarettes
17 with machines. So this isn't people smoking. You put a
18 cigarette in a machine, it takes a standard number of puffs,
19 it puffs until the cigarette reaches the end of the cigarette
20 so you could get more or less puffs depending on the relevant
21 design. All this states is smoking data and what we see is
22 increasing levels of CPL, just annual acronym for a
23 reconstituted tobacco. It's like a paper-like material that
24 is added to the blends at increasing levels.

25 Q. Reconstituted tobacco, is that a tobacco where instead of
page 3488

page 3489

1 just working with the leaf, you take leaf stem, different
2 parts, sweep it together, make it into a sheet?

3 A. In essence, what you are doing is taking tobacco scrap
4 pulverizing it into slurry, casting it on to a band sheet and
5 it literally making paper out of it, a similar process to
6 paper out of paper pulp.

7 Q. They call it reconstituted?

8 A. Yes.

9 Q. Is it in connection with the recon that Brown &
10 Williamson uses an ammonia compound called diammoniaphosphate?

11 A. Primarily, yes.

12 Q. So we talk about recon, that is the part of the tobacco
13 that is going to have the ammonia?

14 A. That's correct. So what you see here is increasing
15 levels of CPCL which would mean increasing levels of ammonia
16 containing tobacco, and Dr. Wigand is pointing to what is
17 called here the nicotine transfer efficiency, and you see that
18 number going up. But what you also see going up and
19 importantly is the puff count. You see the puff count going
20 up. So as CPLR goes up, you are actually getting a greater
21 number of puffs, actually enabling the machine to get more
22 puffs and get more smoke. So actually total smoke is going
23 up, and you can see that, first of all, in the tar levels, you
24 see tar levels go up and nicotine which is simply a
25 constituent of smoke is also going up and the real issue is if

page 3489

page 3490

1 nicotine was being selectively liberated into smoke at a
2 higher level for a given amount of tar, you would expect to
3 see more nicotine and you would expect to see that going up.
4 But in the -- or in the leaf blender's handbook is also
5 calculated tar to nicotine ratio, the amount of nicotine per
6 unit tar. Tar is going up and so is nicotine but if you
7 calculate this, you see the tar to nicotine ratios remain
8 unchanged which means for a given amount of smoke, an
9 identical amount of nicotine is present, which what is
10 actually happening is the inclusion of CPLR in the cigarettes
11 is simply creating more smoke and more tar.

12 Now in the real world, we wouldn't do this because we
13 would design cigarettes to a specific tar content. Typically
14 cigarettes are designed to be either a 16 milligram or 12
15 milligram tar cigarette or a 6 milligram or what have you, so
16 if a design variable actually increased tar content beyond the
17 specified level, that would push us outside the FTC value. We
18 have to generate FTC, Federal Trade Commission numbers on
19 these things, report them to the government. So what we have
20 to do is make an adjustment in the relevant design to bring it
21 in line with the FTC CTR level that is specified for products
22 which would then bring everything else back in line. So all
23 this really is reflecting is the fact that when you add CPLR,
24 you get more puffs per cigarette on the machine smoking more
25 tar, but when you look at the tar to nicotine ratio or the
page 3490

page 3491

1 amount of nicotine per unit tar, which reflects there really
2 isn't any selective increase in the amount of nicotine being
3 delivered in the smoke. You are getting more total smoke.
4 Q. Simple question: Does this document, the Root Technology
5 Handbook, show that by adding more ammonia, you increase the
6 nicotine transfer efficiency?
7 A. No, it doesn't.
8 Q. Does this document show that by adding more ammonia, you
9 increase the concentration of nicotine in smoke?
10 A. No, it doesn't.
11 Q. Does this document show that by adding ammonia, you
12 manipulate nicotine?
13 A. No, it doesn't.
14 Q. Let's talk a little bit about pH.

15 The jury was then shown through Dr. Wigand
16 Plaintiff's Exhibit 36290 which was a BAT Co. document, and in
17 particular reference was made to figure 2 in this document,
18 and figure 2 is this chart called Distribution of Bound and
19 Free Base Nicotine Forms At Various pH Levels, and I think the
20 jury has seen this through Dr. Townsend that as you increase
21 pH, as that goes up, the amount of free form nicotine starts
22 to rise, particularly after you get above about 6.5.

23 A. Correct.
24 Q. Now, this is a BAT Co. document, right?
25 A. Yes.

page 3491

page 3492

1 Q. Was there any secret, is this somehow something that
2 scientists outside of the tobacco companies didn't have any
3 clue of?
4 A. No, this is basic chemistry that you find in any number
5 of chemical textbooks.
6 Q. Showing you GK100344. Is this an article that was
7 actually published in Tobacco Science?
8 THE COURT: Give me the number again, please.
9 MR. BERNICK: GK100344.
10 A. Yes, it is.
11 Q. Do we see on, that -- at page 56, this is a 1972 article?
12 A. Yes.
13 Q. That the chart that was actually in the BAT Co. document
14 talking about 1 to 2 pH of cigarette smoke, 3 to 4 pH of
15 cigarette smoke, this is actually a better copy of exactly the
16 same graph that appeared in the published literature?
17 A. Yes, it appears so.
18 Q. No secret?
19 A. No.
20 Q. If we went to the Surgeon General's own report in 1979,

21 and took a look at page 1486, we would find exactly the same
22 relationship pointed out between the pH of smoke in free and
23 bound nicotine?

24 A. Yes.

25 Q. The jury has already seen GI000027 which is an article

page 3492

page 3493

1 about low risk cigarettes published by Dr. Gorey from the
2 National Cancer Institute.

3 Are you familiar with that?

4 A. Yes.

5 Q. Did the National Cancer Institute itself actually suggest
6 that research be done specifically focused on smoke pH values
7 in protonated and unprotonated nicotine?

8 A. Yes, among other things, they did.

9 Q. Is this exactly the same basic chemistry that is as you
10 increase pH, you may change the form of nicotine?

11 A. Yes, it is.

12 Q. Any secret?

13 A. No.

14 Q. Let's talk about what actually happens to pH, what
15 actually happens to pH when you add ammonia using the recon in
16 Brown & Williamson cigarettes. Is this something that you
17 specifically at Brown & Williamson and Brown & Williamson
18 specifically researched?

19 A. Yes, I have.

20 Q. Showing you GI000146. Is this a report done by Brown &
21 Williamson with regard to their own products?

22 A. Yes, it is.

23 MR. BERNICK: We offer it, your Honor.

24 THE COURT: Admitted.

25 (So marked Defendant's Exhibit GI000146 in evidence.)

page 3493

page 3494

1 Q. This report is dated August 26 of 1996?

2 A. Correct.

3 Q. Part 1 is: The effect of reconstituted tobacco. That is
4 the kind of tobacco that contains ammonia diammonium
5 phosphate?

6 A. Actual, they looked at 4 reconstituted tobaccos, one of
7 them included CPCL which contained the diammonium phosphate.

8 Q. This was done in 1986?

9 A. Correct.

10 THE COURT: 1996?

11 MR. BERNICK: 1996, I'm sorry.

12 Q. The conclusion with regard to smoke pH says:

13 Since the decrease was observed for all 4 recons,
14 continuing, without sugar ammonia chemistry, incorporating
15 sugar ammonia chemistry in recons does not seem to have an
16 effect on altering the smoke pH of a cigarette.

17 Was that the conclusion reached?

18 A. Yes, it was.

19 Q. If we actually turn to the charts, what did they show
20 happens to smoke pH as you increase the amount of these
21 recons?

22 A. The CPLR is the upper left-hand panel and what it shows
23 is as you increase CPLR from 0 percent up through 5, 16 and 24
24 percent, you have a slight reduction in smoke pH.

25 Q. Do these provide any truth or support for the notion that

page 3494

page 3495

1 by adding ammonia, you are increasing pH and manipulating
2 nicotine?

3 A. No, it doesn't.
4 Q. Let's talk about how much pH has to go up before you
5 start to really have free nicotine.
6 Has the Surgeon General provided guidance on how high
7 the pH has to go before you start to get significant amounts
8 of free nicotine?
9 A. Yes.
10 THE COURT: Number of that?
11 MR. BERNICK: I believe that this is number 8.
12 Q. If we go to page 14108, do we see at the bottom of the
13 page this is a 1979 report, a discussion of a 6.5 figure?
14 A. Which page?
15 Q. 14108 down at the bottom?
16 A. Yes.
17 Q. What does the Surgeon General say about that number?
18 A. Let me find the beginning of the sentence.
19 Since cigarettes in the United States and in most
20 foreign countries are made of flu-cured tobacco are blends of
21 flu-cured tobacco as a major ingredient or in a few cases are
22 blends of Turkish tobacco, the pH of the resulting mainstream
23 smoke is approximately 6.5, essentially thus containing only
24 protonated nicotine.
25 Protonated means bound nicotine or not free nicotine.

page 3495

page 3496

1 Q. Not free nicotine?
2 A. Right.
3 Q. That was the 1979?
4 A. Yes.
5 Q. And the Surgeon General says essentially everybody is
6 below 6.5 pH and thus essentially contains only protonated
7 nicotine?
8 A. Correct.
9 Q. So we're below that number here.
10 Has more recent data been gathered -- since 1979,
11 have more and more cigarettes been made with ammoniated
12 tobacco?
13 A. Well, Brown & Williamson didn't begin employing ammonia
14 technology in cigarettes until the mid-80s.
15 Q. So as we sit here today, are there a number of brands
16 that now contain the ammonia?
17 A. Yes.
18 Q. If adding ammonia had the effect of manipulating the pH,
19 what would we have expected to have happened to the pH of
20 smoke of the brands out there today?
21 A. If addition of ammonia to cigarettes truly increased
22 smoke pH, you would expect the pH to go up, to be higher.
23 Q. Showing you what has been marked as GK100345.
24 Are you familiar with the report that was done for
25 the Massachusetts Department of Health on the pH of commercial

page 3496

page 3497

1 cigarettes?
2 A. Yes, I am.
3 Q. Showing you Table 2 from that, does this reflect the pH
4 of many commercial cigarettes?
5 A. Yes, it does.
6 Q. Are there Brown & Williamson brands here?
7 A. Yes, there are.
8 Q. Which ones?
9 A. Carlton, the Carlton Regular and Carlton Ultra. Third
10 one from the top.
11 Q. Are those ammoniated or not?

12 A. Right offhand, I don't recall.
13 Q. What about Marlboro, is that an ammoniated brand?
14 A. I think it doesn't contain ammonia-related ingredients.
15 Q. If we take a look at all the different ranges of pH that
16 we have in 1992, actually it's not 1992, it's 1997, are they
17 essentially, are they all of them under 6.5?
18 A. Yes, they are.
19 Q. You get a range that is probably a low of 5.998?
20 A. That is essentially 6.
21 Q. So it's around 6.0 all the way up to a high of 6.35?
22 A. Correct.
23 Q. You went back to the Morey paper, GK00134. This is a
24 1972. Does Morey also comment back in 1972, that is before
25 ammonia was used extensively, correct?

page 3497

page 3498

1 A. Yes.
2 Q. He says the range there is from 5.2 so it's somewhat
3 lower at the low end up to 6.2.
4 Do we see that there is any significant change at the
5 top levels of ammonia that you have in cigarettes?
6 A. No.
7 Q. Is there any cigarettes that are being tested across this
8 band of 25 years that get to the level that the Surgeon
9 General says will give you something other than essentially
10 unprotonated nicotine?
11 A. No.
12 Q. Essentially protonated nicotine?
13 A. No.
14 Q. Are any of the cigarettes in the range where you have
15 significant free nicotine?
16 A. No.
17 Q. The second claim or second part of the claim was that
18 ammonia was used to increase the nicotine rush, do you see
19 that?
20 A. Yes.
21 Q. If we went back to the Root Technology Handbook that the
22 plaintiff showed you, that is that book, that manual, 8919,
23 are there references in that root technology book to impact?
24 A. Yes, there are.
25 Q. Showing you: Ammonia Can Liberate Free Nicotine. It

page 3498

page 3499

1 says: From the blend which is associated with increases in
2 impact and satisfaction reported by smokers.
3 Then later on we have the same language. I can't
4 actually pull out the highlighting.
5 What is impact, is impact nicotine rush?
6 A. No, no, impact is a term that describes one of the many
7 sensory characteristics of smoke. It's used by product
8 developers to have people characterize when they smoke a
9 cigarette for testing different products, how does it taste,
10 and they have various terms that they use like tobacco
11 strength, tobacco taste, so on. Impact is one of the terms
12 designed to elicit responses from consumers or people testing
13 cigarettes on what kind of a sensory experience they are
14 having. It's defined as the split second catch in the back of
15 the throat that you feel at the back of the throat when you
16 inhale cigarette smoke.
17 Q. So a smoker takes a puff, it gets into his or her mouth
18 and then inhales. What is the sensation that impact refers
19 to? Where is it actually taking place?
20 A. In the back of the throat.

21 Q. Here?

22 A. Yes.

23 Q. Does that have to do with absorption of smoke in the
24 lungs and the effect on the central nervous system?

25 A. No, it's a local effect, it occurs within literally a

page 3499

page 3500

1 split second.

2 Q. Showing you GK0003 -- GK000555, has this idea that
3 increased pH might affect the nicotine rush actually been
4 analyzed by people who are experts in the field of nicotine
5 pharmacology?

6 A. Yes.

7 Q. Is Dr. Neil Benowitz one such person?

8 A. Yes, he is.

9 Q. GK000555, is that the report of Canada's Expert Committee
10 On Cigarette Modifications?

11 A. Yes.

12 Q. Is this the reflection of a conference that was held on
13 cigarette modification?

14 A. Yes.

15 Q. Is that something that is ongoing in Canada at the
16 present time and was in the late 1990s?

17 A. Yes, it is, and again modifications they are referring to
18 is to make a cigarette safer.

19 Q. Dr. Benowitz says with respect to pH: It's my impression
20 that whatever gets into the lung pretty much gets absorbed.
21 The lung has a huge surface area and is highly buffered. A
22 more important factor when considering pH is the proportion of
23 nicotine found in the vapor phase. And he then goes on to
24 talk about it.

25 He then continues: The higher the pH, the more

page 3500

page 3501

1 nicotine impact there would be.

2 Same word?

3 A. Yes.

4 Q. On the throat?

5 A. Correct.

6 Q. Is that the right location for impact, right back here?

7 A. Yes.

8 Q. One would experience more irritation, more of a nicotine
9 type sensation. I don't think the differences in pH would
10 make much of a difference in bioavailability.

11 What is bioavailability?

12 A. The amount that gets absorbed into the body.

13 Q. Through?

14 A. Through whatever surface is contacted by primarily the
15 lung.

16 Q. Although it would impact on how strong the cigarette
17 tasted.

18 Is that consistent or inconsistent with what
19 actually, what you have actually talked about as being the
20 impact?

21 A. He is talking about 2 things, saying that if you increase
22 smoke pH, he believes it might increase the sensation of
23 impact which is the sensation of nicotine is really an
24 irritation effect in the throat but doesn't believe any effect
25 on the absorption of nicotine in the body.

page 3501

page 3502

1 Q. Is there any support that you are aware of for the
2 proposition that it increases or that the kinds of smoke and

3 the kinds of ammonia that we have increase a nicotine rush?
4 A. Well, from the evidence I've seen, the way we use ammonia
5 does not do that.
6 Q. Is this notion a correct notion or a false notion,
7 ammonia is used to manipulate nicotine and increase the
8 nicotine rush?
9 A. I think it's incorrect.
10 Q. You were saying what it is that Brown & Williamson uses
11 ammonia for.

12 What do we use ammonia for?
13 A. One of the documents referred to sugar ammonia
14 chemistry. What that is, when ammonia is reactive with sugar,
15 it forms certain chemical substances and the reaction is
16 actually well described in the food technology and food
17 chemistry literature, the Maillard reaction, and it's the same
18 thing that happens when you roast bread. If you smell raw
19 dough, it smells like raw dough. If you roast it, you get a
20 roasty type aroma. The same is true in meat, you get a roast
21 in the oven, you get a roasty smell. When you toast bread,
22 you get a reaction. When you roast coffee or peanuts, you get
23 the same thing. We were talking before about caramel. It
24 employs the same reaction. There are certain caramels called
25 ammoniated caramels. Ammonia is added to caramel sugar and

page 3502

page 3503

1 cooked up in the form of caramel and I referred to it as
2 roasty toasty flavor. It's generally what happens when you
3 create a roasted or toasted type of flavor or aroma, which we
4 have discovered that when you add those types of components to
5 tobacco, you can generate sorts of what I called a roasted or
6 toasted type of flavor or aroma in tobacco which people find
7 pleasant.
8 Q. You have sugars and you have ammonia, this is number 9,
9 and when you add them together and burn, you create --
10 A. Maillard reaction products.

11 (Continued on next page.)
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page 3503

page 3504

1 DIRECT EXAMINATION (Cont.'d)
2 BY MR. BERNICK:
3 Q. Did I spell that right?
4 A. Yes.
5 Q. We never had any ammonia that we added. Is that same
6 kind of reaction actually present in blended tobaccos even if
7 you don't have ammonia?
8 A. Yes, it does occur naturally. Both sugar and ammonia
9 occur naturally in tobacco actually. Reaction actually occurs
10 in tobacco and the rate at which it occurs depends upon the
11 temperature. If you increase the temperature of the

12 processing of tobacco you can facilitate the reaction which
13 occurs anyway, but if you add sugar and ammonia then you can
14 enhance the reaction in that sense.
15 Q. The jury heard about flue-cured tobacco and Burley
16 tobacco. Are those tobaccos used in cigarettes? A. Primarily,
yes.

18 Q. When they burn together do they produce a similar
19 reaction?

20 A. Yes.

21 Q. The whole idea of blended tobacco, is that a development
22 that took place in the 1920s?

23 A. Blending tobacco?

24 Q. Using a combination of flue-cured and Burley, when did
25 this take place?

page 3504

page 3505

1 A. I don't know exactly. My impression is tobacco has been
2 blended for decades. Maybe longer than the 1920s.

3 Q. Is one of the advantages of blended tobacco specifically
4 it tastes better?

5 A. Yes. Burley tobacco has a rich chocolaty type of flavor
6 and flue-cured is sort of a thin, I consider thin, sort of
7 limpy type of taste. Some people don't prefer either, but a
8 blended type of blend gives you sort of the best of both
9 characters.

10 Q. Next I want to kind of move up and finish up the chart
11 and finish up your direct examination so we can get on and
12 maybe avoid a fire drill and actually finish. At page 1136,
13 Dr. Wigand made a further statement. He said, question on
14 direct examination in this case:

15 "Question: Dr. Wigand, while you were at Brown &
16 Williamson, was it known within the company clearly that the
17 element in cigarettes that made it addictive was the
18 nicotine?"

19 His answer was, "Yes, I've captioned this by saying
20 Brown & Williamson knew internally it was nicotine that made
21 cigarettes addictive."

22 Let me just ask you and also point out that one of
23 the documents that was used by the plaintiffs is Exhibit 435,
24 Plaintiff's Exhibit 435, a 1963 memo and it contains the
25 statement that says: Moreover nicotine is addictive. We are

page 3505

page 3506

1 then in the business of selling nicotine, an addictive drug
2 effective in the release of stress mechanisms.

3 Do you see that?

4 A. Yes, I do.

5 Q. This was also shown to the jury in connection with the
6 statement that Brown & Williamson clearly knew that the
7 element in cigarettes that made it addictive was the
8 nicotine. That is the point of reference here. Let me just
9 ask you, any secret internal in 1963 at Brown & Williamson
10 that people smoke for nicotine?

11 A. I think it has been known for decades, way before 1963
12 that nicotine was very important, was an important reason why
13 people smoke.

14 Q. If, again, we went to the Surgeon General in 1988, that
15 was the year that the Surgeon General concluded that smoking
16 was addictive?

17 A. That's correct.

18 Q. At page ten it says --

19 THE COURT: Page ten of what report?

20 MR. BERNICK: GK0000245.

21 Q. As early as the 1920s and 1930s some investigators were
22 concluding nicotine was responsible for the compulsive use of
23 tobacco products.

24 There is a citation to the Johnston paper of 1942.
25 Are you familiar with that paper?

page 3506

page 3507

1 A. I believe so.

2 Q. I believe that is already in evidence as GK000226. It is
3 an article that appeared in the Lancet. Is that a well
4 respected journal of medicine?

5 A. Yes.

6 Q. 1942. Does that contain the Johnston article?

7 A. Yes.

8 Q. It says: On the assumption that smoking tobacco is
9 essentially a means of administering nicotine, just as smoking
10 opium is a means of administering morphine, nicotine was given
11 hypodermically to 35 volunteers.

12 It goes on to say at the end: Smokers show the same
13 attitude to tobacco as addicts to their drug, and their
14 judgment is therefore biased in giving an opinion of its
15 effects on them, yet abstinence is generally followed by
16 improved health.

17 Is that the statement that was being quoted by the
18 Surgeon General?

19 A. Yes.

20 Q. Now, apart from what was appearing here --

21 THE COURT: I'm sorry, I lost it. The statement was
22 made when?

23 MR. BERNICK: 1942.

24 Q. Now we had the Surgeon General talking about that in
25 1988. Was there actually a compilation that was put together

page 3507

page 3508

1 with support by the tobacco industry on the scientific
2 literature and what it said about the properties of cigarettes
3 and smoke?

4 A. Yes.

5 Q. I put four volumes up there. What is this called?

6 A. I refer to it as the Larson Haag Silvette compilation.

7 Q. For the record GC00007.

8 Was this a compilation that was assembled over the
9 years with tobacco company funding to muster all in one place
10 the developing science on cigarettes and their properties?

11 A. Yes, it is.

12 Q. If we wanted to focus specifically to the first study of
13 the first edition that came out in 1961 --

14 THE COURT: You're getting into a new point, I take
15 it, aren't you?

16 MR. BERNICK: Absolutely.

17 THE COURT: Why don't we take a break for a few
18 minutes.

19 (Recess taken.)

20 (The jury enters the courtroom.)

21 THE COURT: Yes, go head, please.

22 BY MR. BERNICK:

23 Q. If we turn to page -- I believe the first volume came out
24 in 1961; is that correct?

25 A. Yes. This is not volume one.

page 3508

page 3509

1 Q. Oh, I've got volume one.

2 A. Yeah, I think you've got it.

3 THE COURT: You're giving one number to all volumes
4 together?
5 MR. BERNICK: That's correct, your Honor.
6 THE COURT: There are how many, three, volumes?
7 MR. BERNICK: There are four.
8 THE COURT: Four, okay.
9 Q. The 1961, that's the first one?
10 A. Yes.
11 Q. If we turn to page 531, long before the Surgeon General
12 said so in 1988, is there a recitation of all of the different
13 publications that have already taken place by 1961, all
14 dealing with the theory that people smoke for nicotine?
15 A. Yes. This highlighted passage is referring to many
16 investigators who stated or hypothesized nicotine was the
17 single most important factor or most important factor in
18 smoking.
19 Q. Showing you TG000024, was there actually follow-up
20 research that was conducted with tobacco company funding
21 looking at how smokers controlled smoking for nicotine?
22 A. Yes, there is.
23 Q. Is that an article that was published with tobacco
24 company funding?
25 A. Yes, it is.

page 3509

page 3510

1 Q. It is called pharmacological basis for the tobacco
2 smoking habit. It has got Dr. Armitage, Hall, and it says
3 Department of Pharmacology, Tobacco Research Council
4 Laboratories, Herragut. Is that the same Herragut you were
5 talking about yesterday that did the mouse skin painting work
6 with tobacco company funding?
7 A. Yes.
8 Q. Doctor Armitage in this article says: It is worth noting
9 that someone smoking a cigarette has literally finger tip
10 control of how much nicotine he takes into his mouth. By
11 reducing the puff volume or inhaling less frequently he
12 absorbs less nicotine.
13 Is this the same theory that smokers use finger tip
14 control to regulate their intake of nicotine?
15 A. That's what he seems to be indicating.
16 Q. Now, it was also pointed out that the word addictive was
17 being used at this early date in 1963, the '63 document talked
18 about nicotine is addictive.
19 THE COURT: What document did you have?
20 MR. BERNICK: That's Plaintiff's Exhibit 435 already
21 in evidence.
22 Q. Did the tobacco industry itself again sponsor
23 publications back during this period of time basically saying
24 that at least heavy smokers are in fact addicted?
25 A. Yes.

page 3510

page 3511

1 Q. Showing you TG000353, is this one such article?
2 A. Yes.
3 Q. Published in 1963, American Journal of Psychiatry,
4 addictive aspects in heavy cigarette smoking. It says here:
5 The work was supported in part by grants from the American
6 Cancer Society and the Tobacco Industry Research Committee,
7 TIRC. The jury heard about CTR. Was that an earlier name for
8 the TIRC?
9 A. Yes.
10 Q. Talks about nicotine as an active agent. Though not
11 necessarily the only noxious agent in tobacco it appears to

12 have certain addictive qualities.
13 Heavy cigarette smokers thus appear to be true
14 addicts, showing not only social habituation but mild
15 physiologic withdrawal effects.
16 Was there any internal secret or was addiction a word
17 that was used in the published literature back in the early
18 1960s?
19 A. It has been a concept or word that has been used way back
20 in the sixties and even before that.
21 Q. Let's talk about another word, habit. Was that also
22 being used?
23 A. Yes.
24 Q. What about addictive habit, was that also being used?
25 A. I've seen it, yes.

page 3511

page 3512

1 Q. Showing you GK000005, is this the excerpts from the Royal
2 College of Physicians report in 1962?
3 A. Yes.
4 Q. What was the Royal College report in 1962?
5 A. The Royal College of Physicians is a body of eminent
6 physicians in the U.K. and they undertook to examine the issue
7 of smoking and make a determination, judgment of whether or
8 not smoking contributed to human disease, and in 1962 they did
9 form that judgment, they did conclude that smoking contributed
10 to human disease and they issued this report.
11 Q. At page S7 they say: Smokers may be addicted to
12 nicotine, but it goes on to say it appears that social factors
13 play a bigger part in determining smoking habits --
14 THE COURT: Bigger part? Reread it.
15 Q. -- it appears social factors play a bigger part in
16 determining smoking habits than internal drives or needs.
17 Then later --
18 THE COURT: May I see this full quote, the bottom.
19 The bottom.
20 MR. BERNICK: I'm sorry.
21 (Quote displayed.)
22 THE COURT: Thank you.
23 Q. Later in the same report, page 39: Widespread popular
24 beliefs which doctors mostly share credit smoking with the
25 ability to relieve tension and assume that it is, or at any

page 3512

page 3513

1 rate can become -- you got both words -- an addictive habit?
2 A. Correct.
3 Q. If we go to internal documents, this is already in
4 evidence, it is Plaintiff's 345, 1962 BATCO research
5 conference Southampton 1962, Plaintiff's 345. Internally
6 BATCO is saying: Lastly, smoking is a habit of addiction.
7 Was that also a word that was being -- a phrase that was being
8 used?
9 A. Yes.
10 Q. So, smoking for nicotine, addictive, habit, addictive
11 habit, habit of addiction, I guess those are all the
12 possibilities, right?
13 A. Yes.
14 Q. Was the fact of these different terms being used actually
15 the subject of commentary by scientists in the published
16 literature?
17 A. Yes, it was.
18 Q. Showing you GK000059, is this an article that appeared in
19 The Journal of the American Medical Association?
20 A. Yes.

21 Q. 1962, same period?

22 A. Yes.

23 Q. It is an article called Medical Perspectives on -- guess
24 what words all over again? -- Habituation and Addiction, by
25 Dr. Severs. Definitions. Experts in the field of drug abuse
page 3513

page 3514

1 have attempted to preserve the so-called scientific meanings
2 of the terms habituation and addiction by redefining them and
3 enlarging their scope in the hope that they could serve the
4 needs not only of science and medicine but also of law and
5 sociology. As a longtime student of this problem who must
6 assume his share of responsibility for contributing to the
7 present confusion, it -- confusion is the term, right?

8 A. Yes.

9 Q. -- it becomes increasingly apparent to me that these
10 terms are beyond salvage for the scientific description of
11 drug effects and should be abandoned.

12 Later on, in talking about tobacco, the situation in
13 regard to the use of tobacco contributes further to the
14 confusion. The term cigarette addict is common among laymen,
15 and the term addiction is applied to the abuses of tobacco,
16 alcohol and narcotics, without discrimination by many in the
17 medical profession especially since cigarette smoking has
18 become a cause celebre in certain medical groups.
19 Unfortunately, the selection of applicable terms seems to be
20 based upon more -- to be based more on emotional rather than
21 semantic considerations and comparisons more on motives of
22 propaganda than on scientific facts.

23 Is that a publication in 1962?

24 A. Yes.

25 Q. What happened to the whole question of what term to use
page 3514

page 3515

1 in 1964?

2 A. Well, the issue was examined in the 1964 Surgeon
3 General's report, namely, is smoking considered an addiction
4 or is it considered a habit, and in that particular case they
5 developed very specific definitions and criteria to apply to
6 evaluate smoking and classify it as to what it is and devoting
7 actually an entire section of the Surgeon General's report to
8 that. In that report they concluded based on the criteria
9 they had smoking was not an addiction but rather should be
10 considered habit.

11 Q. Smoking and Health, report of the Surgeon General,
12 GK00003, 1964, page 350. Distinction between drug addiction
13 and drug habituation. Same words?

14 A. Yes.

15 Q. They have a table that talks about the criteria for drug
16 addiction and drug habituation?

17 A. Yes.

18 Q. What ultimately that -- what ultimately was concluded
19 about which term should be used?

20 A. Conclusion of the Surgeon General's advisory committee
21 was cigarette tobacco addict should be characterized as a
22 habit to contrast it from an addiction.

23 Q. Does that mean that it was easy to quit smoking?

24 A. No.

25 Q. Page 351 the report reads: Thus, correctly designating
page 3515

page 3516

1 the chronic use of tobacco as habituation rather than
2 addiction carries with it no implication the habit may be

3 broken easily?
4 A. Right.
5 Q. To round out the story, we have addictive, habit,
6 addictive habit, habit of addiction, now habit. What did the
7 Surgeon General do in 1988?
8 A. The Surgeon General's advisory committee examined the
9 issue once again. This time they applied a different set of
10 criteria and a different definition and applying these
11 criteria and definition concluded cigarette smoking was an
12 addiction.
13 Q. Is that the current view of the Surgeon General so far as
14 you know it?
15 A. Yes, it is.
16 Q. That's the view of Brown & Williamson?
17 A. Based on the current understanding and definition
18 commonly used, yes.
19 Q. There it says on the chart B&W knew internally. Was the
20 idea the people smoke for nicotine, call it a habit, call it
21 addiction, that people smoke for nicotine was that any kind of
22 secret?
23 A. No.
24 (Continued on the following page.)
25

page 3516

page 3517

1 DIRECT EXAMINATION (CONT'D.)
2 BY MR. BERNICK:
3 Q. Now, we'll try to get you done before lunch here. I'm
4 going to move through these very quickly. This will be number
5 eleven.
6 Lawyer involvement in research. There was testimony
7 about Project Rio; Project Rio got done?
8 A. Yes, it did.
9 Q. There was testimony about the receipt and retention of
10 research reports, that is whether the research that was all
11 being done in England, whether it came -- whether the stuff
12 that came over to the United States really came to Brown &
13 Williamson as opposed to being routed to somebody else. Have
14 you looked into that, that is whether Brown & Williamson in
15 fact has copies of what was sent to it?
16 A. Yes, I have.
17 Q. And what is your view on that based upon the review that
18 you've done?
19 A. My view is that everything that England had for us on the
20 distribution list to send to us we received and we had.
21 Q. Editing of research reports, there was reference to the
22 possibility -- Dr. Wigand said, well, research reports were
23 edited, he then said he couldn't identify any. Have you been
24 able to identify research reports that were edited?
25 A. No, I haven't.

page 3517

page 3518

1 Q. He said, well, there was editing of these internal
2 meeting conferences like Vancouver; was there editing of some
3 of the internal meeting conferences?
4 A. Sometimes people would ask lawyers for their views or
5 opinions to review meeting minutes and so forth and sometimes
6 minutes were edited and were revised but I'm not aware of any
7 case where the person in charge of the meeting or the
8 scientist didn't have ultimate say or ultimate determination
9 of what the content of those minutes would be.
10 Q. But in terms of just keeping a focus on what you're
11 talking about, in particular are you familiar with the

12 Vancouver situation?
13 A. Yes, I am.
14 Q. And is that what you're talking about when you give your
15 testimony is the Vancouver situation?
16 A. Yes.
17 Q. In the Vancouver situation was there in fact editing of
18 these minutes?
19 A. Yes, there was.
20 Q. Okay. Is that something that you -- let me just ask you
21 if you then went from talking about the internal conference
22 minutes, now talking about public positions that are being
23 taken like when BATCo. came out with their public position, is
24 that also something where the lawyers played a role in
25 reviewing what was being said publicly?

page 3518

page 3519

1 A. The lawyers actually would be interested in any aspect, I
2 mean any major statement that we would be prepared to make to
3 the public so I would think they'd be more inclined to be
4 involved in positions that are being publicly -- officially
5 taken by the company and communicated to the public than being
6 involved with meeting minutes.
7 Q. Okay. I was going to pull something out, here it is.
8 This was shown to the jury, Plaintiff's 41701 which was a
9 letter from Mr. Wells to Dr. Blackman February 1983 and this
10 was quoted for the comment number 15: We believe the correct
11 citation is, and he talks about a correction -- a correct
12 citation, he then talks about in the article Blot reaches
13 strong anti-smoking conclusions and gives the quote and then
14 says the article should not be used.

15 Was Mr. Wells providing comments on some research
16 paper or what was he providing comments on?

17 MR. WESTBROOK: Objection, Your Honor. Dr. Appleton
18 was not involved in this at all, this is not part of his
19 expertise.

20 THE COURT: I'll allow it based on his examination.

21 Q. What was issues of smoking, was that some kind of
22 research paper?

23 A. No, it was not, it was a position statement on various
24 issues associated with smoking and health.

25 Q. Okay. Safer cigarette research was terminated, for

page 3519

page 3520

1 example Airbus. There was testimony about the fact that
2 Dr. Wigand believed that there was an effort to terminate
3 Airbus for litigation reasons. Are you familiar with the
4 Airbus project?

5 A. Yes.

6 Q. Are you familiar with the documents that Dr. Wigand
7 himself reviewed and created in connection with Airbus?

8 A. Yes, I am.

9 Q. Was Airbus terminated?

10 A. No, what happened with Airbus is that it was taken to a
11 certain point and basically we ran into all kinds of technical
12 problems, basically the bottom line is we couldn't get it to
13 work. It was recognized that more fundamental work would be
14 needed and the fundamentals that were required to make such an
15 alternative product work and it was decided that that work
16 would best be done in Southampton. The project, the phase of
17 it that we had done at Brown & Williamson ended because we
18 couldn't make it work and then it was sent back to Southampton
19 to develop this more fundamental research that would be needed
20 in order to push the project forward.

21 Q. Was that something Dr. Wigand himself participated in and
22 approved?

23 A. Yes.

24 Q. This Project Rio was done, you believe that B&W received
25 and retained research reports, not aware of edited R & D

page 3520

page 3521

1 reports, Vancouver minutes were edited; did I get all those
2 right?

3 A. Yes.

4 Q. Number eight, Brown & Williamson knew asbestos and
5 tobacco had a multiplicative effect; at the time that
6 Dr. Wigand was at Brown & Williamson was there already
7 published literature on the multiplicative effects of asbestos
8 and tobacco?

9 A. Yes, there was.

10 Q. Was there anything that Dr. Wigand did while he was at
11 Brown & Williamson and you were working with him to say here's
12 the position that Brown & Williamson should take on the
13 multiplicative effect, is that something that Dr. Wigand spoke
14 to at all?

15 A. Not that I was aware of.

16 Q. This document --

17 THE COURT: I'm sorry, I didn't catch that, not that
18 you were aware of from your examination of the documents or
19 from being present?

20 THE WITNESS: From my experience working at Brown &
21 Williamson.

22 THE COURT: During the Wigand period?

23 THE WITNESS: Yes.

24 THE COURT: I see, okay.

25 Q. Based on your review of documents have you seen any

page 3521

page 3522

1 documents where Wigand actually took a position, anything?

2 A. On --

3 Q. On the --

4 A. On the interaction between tobacco -- no, I'm not aware
5 of any documents.

6 Q. There was reference at the very end of his testimony,
7 after I left all my documents were destroyed, and the jury was
8 shown this.

9 MR. WESTBROOK: Objection, he didn't say all the
10 documents were destroyed, he said specific documents.

11 MR. BERNICK: Well, these, 39540, 39540 was offered
12 into evidence by the trust in this case through Dr. Wigand
13 relating to his files.

14 Q. Now, does Brown & Williamson have a document retention
15 program?

16 A. Yes, we do.

17 Q. Under the document retention program when somebody leaves
18 the company, are their files supposed to be reviewed to see
19 whether and what portions of the files should be kept and what
20 portions should be destroyed?

21 A. Yes.

22 Q. When a list is created such as we see here with 39540,
23 does this mean by itself that something wrong was done with
24 Dr. Wigand's files or the files were not properly taken care
25 of?

page 3522

page 3523

1 THE COURT: Reframe that, the judgement will be by
2 the jury, not by this witness.

3 Q. Let me rephrase the question.
4 Does the fact that the list is created like this and
5 the files are handled in this fashion, does that mean that the
6 document retention policies at the company were not followed?
7 A. No. You cannot tell from looking at this list whether or
8 not documents were destroyed in conflict with the records
9 retention policy. The only way to know that would be to
10 actually look at the documents and see if they were documents
11 that were designated as being able to be destroyed.
12 Q. Okay.
13 A. Based on the criteria of the records retention schedule
14 to which they pertained.
15 Q. Under the records retention schedules is it even
16 necessary to keep copies as opposed to originals?
17 A. No, according to our records retention policy copies
18 don't have to be kept, only an original record needs to be
19 kept.
20 Q. Do you know whether Brown & Williamson actually has
21 looked into these files to determine whether any of
22 Dr. Wigand's original files were destroyed after he left?
23 A. I'm not aware right offhand of them doing that kind of a
24 systematic assessment.
25 Q. What about his secretary, has his secretary taken a

page 3523

page 3524

1 position with regard to whether the files that were copies
2 were destroyed or the files that were --
3 MR. WESTBROOK: Object --
4 THE COURT: Don't answer.
5 MR. BERNICK: I didn't hear.
6 THE COURT: I don't want that form of hearsay.
7 MR. BERNICK: Okay. Well, then I'll withdraw the
8 question.
9 Q. Last subject and then we can move on, I'll leave this one
10 up here.
11 THE COURT: I should say my last ruling was a
12 reaction to plaintiff's counsel's standing up. I don't know
13 whether he got a chance to utter.
14 MR. WESTBROOK: I didn't utter objection, Your Honor.
15 THE COURT: Okay.
16 MR. WESTBROOK: I started to.
17 Q. Let's talk about one last subject and see if we can get
18 all done. This is ten, eleven, so this will be twelve.
19 Selikoff study on synergy came out in '68?
20 A. Correct.
21 Q. The document called Continuing Controversy came out in
22 early '79?
23 A. Yes.
24 Q. A poster was shown to the jury, PX 000015, Tobacco
25 Industry Knew About Synergy, and some of the documents that

page 3524

page 3525

1 are recited here are dated before that Selikoff study in 1968;
2 are you familiar with this?
3 A. Yes.
4 Q. If you look at those documents to see whether the
5 tobacco --
6 THE COURT: Now what is this, is this a compilation?
7 MR. BERNICK: This is the plaintiff's compilation of
8 quotes from exhibits that they have mustered.
9 THE COURT: That are in evidence?
10 MR. BERNICK: I believe that the document, the poster
11 was used in opening and then also through Dr. Burns.

12 THE COURT: Okay, so all of these snippets are in
13 other documents in evidence?
14 MR. BERNICK: They have at least represented and I
15 take them at face value to be snippets from the documents.
16 THE COURT: Okay, fine, and each one of these is
17 marked with a source?
18 MR. BERNICK: Yes, that's correct.
19 THE COURT: Just so we know what we have.
20 Q. If you take a look at the documents themselves that were
21 dated before 1968 to see whether the tobacco companies knew
22 about asbestos tobacco synergy first even before Selikoff --
23 MR. WESTBROOK: Your Honor, I object to Dr. Appleton
24 talking about other companies' documents beyond Brown &
25 Williamson, he certainly is not qualified and just reading
page 3525
page 3526
1 documents --
2 THE COURT: Try to establish a foundation for us
3 please.
4 MR. BERNICK: Yes.
5 Q. Is synergy a concept within the field of toxicology?
6 A. Yes, it is.
7 Q. In the field of toxicology have you dealt with the
8 concept of synergy in your work?
9 A. Yes, I have.
10 Q. Okay. Is this something that's new and strange to you or
11 is it something that is mainstream part of the work you do?
12 A. It is mainstream part of the work I do, I did some work
13 on that for my doctoral thesis.
14 Q. The question of looking at company documents, is there
15 anything about that that requires something beyond your
16 expertise?
17 A. No.
18 Q. In particular, have we -- we asked you to look at these
19 company documents and see whether as a toxicologist these
20 documents reflect, the documents themselves, without ferreting
21 out intent or anything, do the documents themselves reflect
22 tobacco company knowledge about asbestos tobacco synergy
23 before Selikoff studied it in '68?
24 MR. WESTBROOK: Objection, Your Honor. The question
25 makes it clear the documents speak for themselves. The jury
page 3526
page 3527
1 doesn't need an expert to see what they say.
2 MR. BERNICK: We've sat through weeks of testimony
3 from their experts about our documents. All I'm asking him to
4 do is to look at the documents on their face to see if they
5 have scientific data on their face that reflect tobacco
6 asbestos synergy before '68.
7 THE COURT: I'm not sure I understand the question,
8 is it that a scientist having read those documents would have
9 known they referred to synergy or a layperson would within the
10 company?
11 MR. BERNICK: Let me make it clear.
12 Q. Dr. Appleton, are these documents that were written by
13 tobacco company scientists, the ones now looked at here,
14 Dr. Rodgman, Dr. Rodgman?
15 A. Yes.
16 MR. BERNICK: My question to the witness, Your Honor,
17 is whether the documents themselves reflect knowledge or data
18 on tobacco asbestos synergy. They are all written by
19 scientists, he is a scientist.
20 THE COURT: That question is okay.

21 Q. Yes.
22 A. The documents I reviewed, the ones that are dated before
23 '68, there's no indication that what they're talking about in
24 these documents is a relationship between tobacco and
25 asbestos.

page 3527

page 3528

1 Q. There are references to synergy, there are references
2 sometimes to asbestos, there are references to tobacco; do you
3 see any references that actually link tobacco and asbestos
4 together to say that there's evidence of synergy?

5 A. No, not in these pre-1968 documents.

6 Q. I want to focus on the period of time between 1968 and
7 1979 when the Continuing Controversy document came out, are
8 you with me?

9 Have you taken a look, are you familiar with the
10 research that was done after the Selikoff study but before the
11 Continuing Controversy document, the research that was done
12 that followed up on Selikoff?

13 A. Yes.

14 Q. The question to you is, does that research reflect that
15 there are significant issues about synergy in your judgement
16 as a toxicologist?

17 A. Yes.

18 THE COURT: Okay. No objection. You may answer.

19 Q. Well, Dr. Appleton, let me put it to you this way, did
20 you take a look at these different studies?

21 A. Yes, I have.

22 Q. Between 1968 and 1979 when Continuing Controversy came
23 out, had anybody even managed to replicate what Dr. Selikoff
24 had found in 1968?

25 MR. WESTBROOK: Objection, Your Honor, the doctor is

page 3528

page 3529

1 not an epidemiologist.

2 MR. BERNICK: The witness testified on direct
3 examination --

4 THE COURT: I'll allow it from this witness.

5 A. No, no studies during that time period that you
6 designated had replicated the finding of Selikoff.

7 Q. In fact, by the time of the 1979 Surgeon General's report
8 which is already in evidence as GJ 000113 were there not --
9 were there or were there not still significant issues as of
10 the time of the 1979 Surgeon General's report?

11 A. Yes, there still were issues.

12 THE COURT: With respect to that, try to be more
13 specific please.

14 Q. Well, particularly were there issues about whether the
15 relationship between tobacco, asbestos and lung cancer was
16 additive or multiplicative?

17 A. Yes, there were issues.

18 Q. How were those discussed in the '79 report?

19 A. Well, as you've indicated, there was basically two
20 hypotheses of what kind of interaction there is. When I say
21 interaction, I'm not using it to suggest there's additive or
22 multiplicative but just that there is some interaction between
23 smoking and asbestos. Some studies seemed to suggest that the
24 relationship was additive, namely the risk of smoking was
25 simply additive, added to the risk of asbestos and there are

page 3529

page 3530

1 studies that suggested that, that supported that. There are
2 other studies that suggested and supported the multiplicative

3 relationship, namely the risk of smoking multiplied times the
4 risk of asbestos may be what's happening and there are some
5 studies that supported that.

6 There are also studies that were in between, so there
7 actually were a range of studies that showed a range of
8 responses across the board so it wasn't completely clear at
9 that point just exactly what the relationship was.

10 Q. Now we know that -- I think there's been testimony that
11 Selikoff's report, '68 report was actually replicated in a
12 second study that occurred a little bit after the Surgeon
13 General's report?

14 A. The multiplicative effect was replicated but not nearly
15 as high with relative risk in the combined asbestos and
16 tobacco exposed group as in the '68 report.

17 Q. Have you done a review of publications with regard to
18 synergy even after 1979?

19 A. Yes, I have.

20 Q. Again, have you done that review as a toxicologist
21 determining how science evolved in this area after 1979?

22 A. Yes.

23 Q. Showing you ARF 001991, is this a further publication
24 that took place regarding the interaction between tobacco
25 smoke and asbestos after 1979?

page 3530

page 3531

1 A. Yes, it is.

2 Q. What is the date of that?

3 A. 1986.

4 Q. Is this a study that basically reviews what's happened in
5 the literature between 1968, when Selikoff came out, and 1986?

6 A. Yes, it is.

7 Q. Again, are there or are there not significant issues that
8 are identified by Drs. Steenlen and Thun in this publication?

9 A. Yes, there are issues and they're essentially what I've
10 just described for the period between '68 and '79, namely that
11 there's been many studies done and they have shown a range of
12 responses which makes it not completely clear just exactly
13 what's going on, it could be anything within the range.

14 Q. It says the nature -- this is reading from the abstract
15 beginning, it says the nature of the interaction between smoke
16 and occupational exposure is controversial in part because of
17 lack of agreement on the definition of interaction and in part
18 because of the scarcity of adequate epidemiologic data. Then
19 particularly focused on tobacco it says, the existing data
20 were contradictory for three of the agents studied, asbestos,
21 radon daughters and arsenic.

22 Does that capture the essence of what this article
23 discusses which is the conflicting data that exists in this
24 area?

25 A. Yes, it does.

page 3531

page 3532

1 Q. Dr. Appleton, where Brown & Williamson is today in the
2 year 2000, have you made a review of literature and reached an
3 assessment on whether you believe that there is an interactive
4 effect between tobacco and asbestos based upon your experience
5 within the field of toxicology?

6 A. Yes, I have.

7 Q. What is your opinion as to whether there is in fact an
8 interaction between tobacco and asbestos?

9 A. Based on all the studies combined, I mean it is a
10 difficult thing and no one can make a precise quantitative
11 estimate but it appears to me that there's some degree of

12 interaction, probably more than additive but not
13 multiplicative but somewhere in between because that's where
14 most of the studies seem to fall, some degree of interaction
15 between sort of the two extreme ends.

16 Q. As you sit here today, do you believe that people who
17 both smoked and were exposed to asbestos were at increased
18 risk of disease?

19 A. Yes.

20 Q. Any doubt about that?

21 A. No.

22 THE COURT: I'm not sure I quite understood that
23 answer. Just speak hypothetically so I can try to understand
24 what you are saying.

25 THE WITNESS: The most recent answer or the one --

page 3532

page 3533

1 THE COURT: The one about your position as of the
2 year 2000.

3 THE WITNESS: Okay.

4 THE COURT: If we assess an increased risk of 5, just
5 speaking hypothetically, for smoking.

6 THE WITNESS: Right.

7 THE COURT: And increased risk of 5 for exposure to
8 asbestos.

9 THE WITNESS: Correct.

10 THE COURT: Additive would be increased risk of 10,
11 right?

12 THE WITNESS: Correct.

13 THE COURT: Multiplicative would be what?

14 THE WITNESS: 25.

15 THE COURT: When you speak of multiplying, you mean
16 multiplying the two factors?

17 THE WITNESS: Yes. And what I'm saying is based on
18 the overall literature it appears it's probably somewhere
19 between 10 and 25 because that's where most of the
20 epidemiological studies seem to fall, some degree of
21 interaction, more than additive, less than multiplicative.

22 THE COURT: But I don't want to change your
23 terminology because there is a semantical issue here but if
24 you took a factor, whatever it was, let's say 1.5, could you
25 get a formula (5 plus 5, risk plus risk) times factor X,

page 3533

page 3534

1 whatever it would be, that would be multiplying but it
2 wouldn't be multiplying the two factors X and Y within the
3 parenthesis?

4 THE WITNESS: I'm not exactly sure what you're asking
5 me.

6 THE COURT: Well, is there some multiplication by
7 factor -- perhaps you can question the witness because the
8 phrase multiplicative itself is a little confusing in view of
9 the algebra involved.

10 MR. BERNICK: I think -- let me try to repeat Your
11 Honor's question but then go back to what I think might be the
12 source of the confusion which is what Selikoff originally
13 reported.

14 Q. If you have two factors, let's say 5 and 5?

15 A. Right.

16 Q. And you multiply them together, you get 25?

17 A. Right.

18 Q. A pure multiplicative effect would be 5 two times would
19 be 25?

20 A. Right.

21 Q. Whereas a pure additive effect would be 5 plus 5 would be
22 10?

23 A. Right.

24 Q. Something in between would be not 10 or 25 but something
25 in between. I think what Judge Weinstein is asking, well,

page 3534

page 3535

1 doesn't that involve multiplication to some degree, that is it
2 is not actually 5 times 5 but it is more than additive,
3 therefore, it is a factor of 1.5, for example, so you took 5
4 plus 5 is 10 times 1.5, you know, yields 17.

5 THE COURT: Algebraically it would be risk factor X
6 plus risk factor Y multiplied by whatever the factor --

7 MR. BERNICK: Right.

8 THE COURT: -- is, Pi or whatever it is.

9 Q. What that would be capturing is that there's an element
10 of risk that is simply -- that is more than the simple
11 addition but not as great as a straight multiplication?

12 THE COURT: Yes, there's two parts to the question,
13 is there such a factor and, two, has the factor been defined
14 through research?

15 THE WITNESS: Okay. My opinion about the risk being
16 somewhere more than additive but less than multiplicative is a
17 judgement, it is a judgement based on the collective
18 epidemiology but I recognize the way these studies are done
19 that these numbers can kind of go lots of different ways
20 depending upon how many lung cancer cases there are and how
21 many numbers there are of the various cells, the treatment
22 cells and so forth and I don't think it is possible personally
23 to make a quantitative estimate --

24 THE COURT: I see.

25 THE WITNESS: -- of exactly where this might fall.

page 3535

page 3536

1 It is just a broad judgement that it seems to be more than
2 additive but less than multiplicative but exactly where along
3 that continuum it is, I personally think there's no scientific
4 way to make that estimate.

5 THE COURT: You've answered my question.

6 Q. The historical fact is that what Selikoff was reporting
7 back in '68, that was a multiplicative effect?

8 A. In '68?

9 Q. Yes?

10 A. It was actually more than multiplicative, it would be a
11 super-multiplicative effect.

12 THE COURT: He was hypothesizing, as I understood the
13 testimony, X times Y times factor Z.

14 THE WITNESS: You could say it that way because it
15 was really X times Y was more than the product of the two, it
16 was actually the product times something else.

17 THE COURT: Yes, X, Y, Z all multiplied?

18 THE WITNESS: Right.

19 MR. BERNICK: I'm still going to make an effort to be
20 done in five minutes.

21 THE COURT: Take your time, I'm in no rush.

22 MR. BERNICK: I'm mindful of the jury's focusing on
23 this as opposed to lunch which I'm focused on.

24 THE COURT: I'm not sure the lunch is here anyway.

25 Q. Okay. Let me switch and go to my last chart here which

page 3536

page 3537

1 is public statements about synergy, this whole thing could be
2 about synergy.

3 Public statements. We know that The Tobacco
4 Institute issued the public statement called Continuing
5 Controversy, the couple of pages and the one statement about
6 synergy in 1979?

7 A. Right.

8 Q. Apart from that, are you aware of any public statement
9 made by Brown & Williamson or for that matter by any of the
10 other companies, a public statement about synergy other than
11 Continuing Controversy?

12 A. No, I'm not.

13 Q. Let's talk a little bit about warnings. The jury has
14 been shown a document called 42751, it's by a Peter Lee and it
15 was issued I believe in 1980, August 25 of 1980 and it
16 contains the statement that says: Be that as it may, the
17 enormous lung cancer rates in asbestos workers who smoke are
18 justification enough for the facts to be brought forcefully to
19 the attention of asbestos workers as the authors suggest. The
20 health warning on the packet in the UK may be adequate
21 safeguard to assure the average smoker -- to ensure the
22 average smoker knows the problems he may face. Whether this
23 is so for the asbestos worker is very much open to doubt.

24 Do you see that?

25 A. Yes.

page 3537

page 3538

1 Q. Now, Mr. Lee was writing in the United Kingdom which is a
2 different way of talking about England, let's talk a little
3 bit about the United States in 1980. In the United States in
4 1980 was there consideration of changing the warning on the
5 pack of cigarettes to include a rotational warning?

6 A. Yes.

7 MR. WESTBROOK: Objection, Dr. Appleton has not been
8 identified at all --

9 THE COURT: Consideration by whom?

10 MR. BERNICK: What?

11 THE COURT: Consideration by whom?

12 MR. BERNICK: Consideration by the FTC and ultimately
13 it was brought forward for proposal but the FTC considered it
14 in the first instance.

15 THE COURT: Are there documents to this effect?

16 MR. BERNICK: Yes, there are documents.

17 THE COURT: Why don't we have the documents, I don't
18 understand his expertise.

19 MR. BERNICK: It is just a question of a historical
20 fact.

21 THE COURT: Do you have documents on it?

22 MR. BERNICK: We have a document.

23 THE COURT: Okay.

24 MR. BERNICK: It is a very voluminous document. We
25 can use that instead if that's Your Honor's preference.

page 3538

page 3539

1 THE COURT: I would think so, I would prefer that
2 rather than having a toxicologist.

3 Q. Can you at least identify for the record the document
4 that would reflect this consideration of a rotational warning
5 including synergy, do you remember the document?

6 A. I remember there are proceedings and I believe they're
7 involving the FTC and Congress, proceedings to consider the
8 rotational warnings, this is a document that I reviewed at
9 least.

10 MR. BERNICK: We'll identify those documents and we
11 will offer them in.

12 THE COURT: Yes, if you identify it, then on redirect
13 you can ask the witness what the company was doing, not what
14 Congress or the FTC was doing.

15 MR. BERNICK: Well, okay, we'll pursue that after the
16 lunch break.

17 Q. Let's finally talk about research. There's been
18 discussion about the epidemiology research that was being done
19 by Dr. Selikoff and so we're all clear, epidemiology tells us
20 about risk?

21 A. Correct.

22 Q. Based upon your review throughout this period of time was
23 there, in fact, active epidemiological research on synergy
24 being done by a variety of researchers to find out about the
25 risks of synergy?

page 3539

page 3540

1 A. Yes, there was.

2 Q. Did all of the epidemiologists in fact confirm that there
3 was increased risk when people both smoked and were exposed to
4 asbestos?

5 A. Yes.

6 Q. Let's talk about something else which is laboratory
7 work. Laboratory work, is laboratory work designed to find
8 out about risk or is it designed to find out about something
9 else?

10 A. It is designed to confirm mechanisms of what might be
11 happening as identified in the epidemiological studies.

12 Q. Again, during exactly the same period of time was the
13 research ongoing by a variety of researchers in the laboratory
14 to look into mechanisms of synergy?

15 A. Yes.

16 MR. BERNICK: Again, we'll offer those into evidence,
17 we won't take up the jury's time with that.

18 Q. Even as we sit here today, are there reports that have
19 been issued that discuss whether or not anybody knows the
20 actual mechanism for synergy?

21 A. Yes.

22 Q. What do those reports reflect?

23 A. They reflect a variety of laboratory techniques and
24 research techniques that have been employed to try to discover
25 what could be happening, they reflect a number of hypotheses

page 3540

page 3541

1 of why synergy might be happening. Unfortunately, as is the
2 case in a lot of biomedical research, no actual mechanisms
3 have been identified or proven. Many hypotheses, several
4 hypotheses have been proposed, there's support for many of
5 those hypotheses but none of these have either been confirmed
6 or disproven.

7 Q. So, mechanism in your view based upon the research is as
8 yet not been determined?

9 A. Correct.

10 Q. Risk has been determined, that is the people who are
11 exposed to both have got a risk, that's a health risk?

12 A. Correct.

13 Q. Okay. Now here's the question I have for you and then
14 I'll end, the epidemiology work that was being done that
15 concluded that there was risk, is that epidemiology
16 epidemiology that Brown & Williamson or, in your view, other
17 tobacco companies had greater expertise or could have done
18 better than the people who were already doing the
19 epidemiology?

20 A. Well, I don't believe our expertise was greater than the

21 people who were already doing it.
22 Q. Okay. What about the laboratory work, based upon your
23 review of the laboratory research that was already being done
24 about synergy, is there any expertise that the tobacco
25 companies had to conduct better laboratory research than the

page 3541

page 3542

1 research that was already ongoing as a toxicologist,
2 Dr. Appleton?

3 A. No, we did not have better expertise.

4 Q. From your point of view based upon what you just said,
5 that is that the risk was established and the mechanism has
6 not even been established today, in your view is there
7 anything that the tobacco companies with their own expertise
8 could have done that would have changed the public health
9 picture on synergy earlier?

10 A. No, I don't think anything we could have done or would
11 have done would have changed the overall public health impact
12 of this issue.

13 MR. BERNICK: That's all that I have at the present
14 time.

15 THE COURT: All right. You mean you're resting the
16 direct or what?

17 MR. BERNICK: There were actually two issues but I'm
18 resting the direct examination, Mr. Westbrook can cross. I
19 have two issues I would really like to take up with Your
20 Honor.

21 THE COURT: All right, I'll discuss them now. Be
22 back please at five after two.

23 (Jury leaves courtroom.)

24 THE COURT: Thank you, Doctor, you can step down.
25 Yes.

page 3542

page 3543

1 MR. BERNICK: I'd like the Court's guidance on two
2 issues that are troubling because I don't know how we can
3 proceed to put ourselves in parity with the plaintiffs given
4 what Your Honor just said about them; first, they put into
5 evidence this document from Lee that talks about the health
6 warning packet in the UK and suggested from that that the
7 warnings in the United States were inadequate. We have
8 objected all along that this whole area is preempted, that
9 they shouldn't be visiting the adequacy of warnings anywhere
10 and through Dr. Richmond we were permitted to bring out what
11 was happening with regard to health warnings in the United
12 States.

13 Inevitably it bears very directly on what the FTC is
14 doing and what Congress ultimately did. They're the only ones
15 who can determine that warning. In his testimony,
16 Dr. Richmond's testimony was that the FTC took the issue up,
17 that they decided not to recommend the rotational warning that
18 included synergy, that in fact the Public Health Service
19 didn't have a different view. Now I've got the witness on the
20 stand who is my client's representative and the suggestion is
21 that they should have done a warning. We've got to be able to
22 bring out that, at least in our view --

23 THE COURT: That wasn't the suggestion, I don't
24 know -- I certainly wasn't suggesting that.

25 MR. BERNICK: Their whole model is predicated on the

page 3543

page 3544

1 fact that we failed to do what Selikoff did, warn people, get
2 the information out. If our people are sitting there --

3 THE COURT: No, I think -- my impression was it was a
4 little more sophisticated than that and that was that what you
5 were doing was undercutting the kind of warning that would
6 have otherwise been available to the asbestos smokers.

7 MR. BERNICK: Well, that is not what Harris' model
8 says, Harris' model is flat out this is what would have
9 happened if you had gone ahead and done what Dr. Selikoff --

10 THE COURT: Give me a preliminary charge if you wish
11 on the preemption problem. I have it in the proposed charge,
12 I followed your suggestions in the main on the proposal. If
13 you want something at this point, I'll consider it. I don't
14 know what the UK warning was, what was it?

15 MR. BERNICK: I don't have a clue but I know that
16 from my client's point of view back in 1980 when we were
17 sitting there looking at it, what's on their mind, their mind
18 is that when it comes to warnings that's what Congress is
19 supposed to do. It bears directly on our intent, it bears on
20 our understanding.

21 THE COURT: Are you going to have another witness
22 tell that? I see no reason why you shouldn't use that -- this
23 witness to indicate what warnings were on and that this was
24 required.

25 MR. BERNICK: Yeah, I want to bring out the fact

page 3544

page 3545

1 that --

2 THE COURT: Well --

3 MR. WESTBROOK: Your Honor --

4 THE COURT: Let's see a proposed charge on it.

5 MR. WESTBROOK: Mr. Bernick pointed out they had
6 Dr. Richmond on the stand who was there at the time and he
7 went through all this with Dr. Richmond about the warnings.
8 Dr. Appleton is a toxicologist, not identified as a warnings
9 expert, wasn't at the company until --

10 THE COURT: Do we have in the record now an
11 indication that the FTC --

12 MR. BERNICK: Yes.

13 THE COURT: -- and Congress had required a specific
14 warning and required rotation and what those warnings were?

15 MR. BERNICK: Yes, we do.

16 THE COURT: What else do you need?

17 MR. BERNICK: Because what was not linked up I think
18 in the jury's mind is that when the companies are sitting
19 there looking at this whole issue and his suggestion through
20 Peter Lee is that we should do exactly what Peter Lee
21 suggested which is that we should have issued a warning, I
22 want to bring out the linkage to show that, well, in the
23 United States the warning situation was a situation that was
24 specifically given to Congress and in the minds of the tobacco
25 companies back in 1980 while all this was taking place --

page 3545

page 3546

1 THE COURT: He's not the person to tell that, that
2 was the CEO I guess who could have said that.

3 MR. BERNICK: But he wasn't there in 1980 either.

4 THE COURT: No, he didn't have to be.

5 MR. WESTBROOK: He was when he went through it with
6 Richmond.

7 THE COURT: Excuse me, if you want a charge at this
8 point, let me see what you want. If you want a summation, it
9 may be this may be an appropriate point to sum up, I don't
10 know, a preliminary sum up tomorrow afternoon might be a good
11 time for both sides to take a half hour or an hour to sum up

12 the position.

13 MR. BERNICK: I had hoped to get some sleep tonight,
14 Your Honor, actually.

15 MR. WESTBROOK: Your Honor, we take the position that
16 we were not in favor of that because of the way it was
17 structured, the case wasn't going to be eight weeks long so we
18 didn't want to do that either.

19 THE COURT: Okay, I'll do whatever is required to get
20 the case going on the right track but I don't -- it doesn't
21 seem to me that this toxicologist is in a position to help
22 very much here if the information is already in the record.

23 MR. BERNICK: But he is not only a toxicologist, he
24 deals with these kinds of compliance issues. He's the guy
25 that's involved, for example, in additives lists being

page 3546

page 3547

1 submitted, you know, compliance with the regulations is both a
2 scientific and regulatory matter.

3 THE COURT: Is that his function?

4 MR. BERNICK: I'm sorry?

5 THE COURT: Is that his function, what is his title?

6 MR. BERNICK: I think he did both at RJR and also I
7 think, I don't know if Scott is still here, at Brown &
8 Williamson he's involved in regulatory matters as a
9 scientist. All that I want to do, Your Honor, is that I would
10 like if he's not -- I would like to make a proffer that were
11 he asked, he would say that the matter of warnings in the
12 United States was in the hands of Congress and that in
13 particular the FTC had responsibility for making
14 recommendations and Congress for acting on them, that in 1980,
15 1981 the FTC specifically took a look at the issue of do we
16 include in the rotational warnings a warning about synergy and
17 decided that it didn't satisfy its own standards, didn't make
18 the recommendation and therefore was not adopted by Congress,
19 that's what I would like to establish, and that as a result of
20 that, this whole situation, my client never felt that the
21 warnings on the packs of cigarettes were something that was,
22 you know, in their hands, it was in Congress's hands.

23 THE COURT: That's not the position. The plaintiff's
24 position, as I understand it, is not that different warnings
25 should have been placed on the package, that would have been

page 3547

page 3548

1 impossible.

2 MR. BERNICK: Then why are they bringing out this
3 kind of language from Dr. Lee and suggesting exactly that to
4 the jury. The whole reason he brought this out was to say a
5 health warning, he didn't have to read this to the jury. He
6 read to the jury that there was a health warning in the UK
7 that was inadequate and therefore workers were not being
8 adequately informed. What does that tell the jury, why didn't
9 the tobacco companies go about following what Dr. Lee said and
10 the reason that we didn't was that exactly the time these
11 words were being written Congress was taking up exactly the
12 same issue.

13 MR. WESTBROOK: Your Honor, Mr. Bernick's closing
14 argument is exactly that, he was through all this in great
15 detail with Dr. Richmond and there's no reason with this
16 witness on the stand who was not involved in FTC warnings for
17 him to bring out --

18 THE COURT: Well, if he is a compliance officer I
19 suppose he could be asked that. He's right here. Come
20 forward, sir.

21 What are your duties in the company?
22 THE WITNESS: My primary duties are to review new
23 materials and new ingredients for acceptability from a
24 regulatory point of view, from a safety point of view. It is
25 also to be familiar and aware of and to monitor the health
page 3548
page 3549

1 effects, literature regarding smoking and health. It is to
2 keep track of regulatory events as they pertain to cigarette
3 products and also to structure and develop and manage a
4 product testing program, a toxicological testing program.
5 THE COURT: Well, do you give opinions to your
6 superiors? What level -- you are a middle level employee, are
7 you?

8 THE WITNESS: I'm a director, that's mid-level
9 basically.
10 THE COURT: You give opinions to your superiors about
11 warnings that should be given apart from those on cigarettes
12 or the nature of advertising that might affect evaluations?

13 THE WITNESS: I'm certainly involved in advising the
14 company of what the health related issues are pertaining to
15 cigarettes, so if they came to me and said --

16 THE COURT: Did they come to you?

17 THE WITNESS: No, they didn't.

18 THE COURT: It doesn't seem to me he's the
19 appropriate witness, that's not within the scope of his
20 employment.

21 MR. BERNICK: I think that Dr. Appleton would also
22 say, if I'd be permitted to ask a question, that during all
23 periods of time where Brown & Williamson has been operating in
24 this environment, who from Brown & Williamson's point of view
25 had lawful authority to spell out what the warnings on the

page 3549

page 3550

1 packs of cigarettes should be?

2 THE COURT: Well, there's never been any doubt about
3 that.

4 MR. BERNICK: But see, in the jury's mind, Your
5 Honor, the jury doesn't know any of this, the jury doesn't
6 know that, the jury doesn't know that Congress goes through
7 this whole process and that that's the reason why the
8 companies don't sit there --

9 THE COURT: If you ask that specific -- ask the
10 witness that question right now.

11 MR. BERNICK: Well, I guess the question would be --

12 THE COURT: Ask the witness right now.

13 MR. BERNICK: Okay. Dr. Appleton, from Brown &
14 Williamson's point of view, who is it that has lawful
15 authority to determine the content of warnings on the packages
16 of cigarettes?

17 THE WITNESS: The Federal Trade Commission.

18 THE COURT: Well, you could even be stronger than
19 that, did he have or the company have the power to change the
20 warning label on the package; that's what you're trying to get
21 at, isn't it?

22 MR. BERNICK: Yeah, well, that and --

23 THE COURT: Ask him that directly.

24 MR. BERNICK: That and that this very issue that the
25 company knew that this very issue was being taken up by the

page 3550

page 3551

1 FTC at the very time that Lee was writing this document.

2 MR. WESTBROOK: Your Honor, that's 1980, he wasn't

3 there.

4 MR. BERNICK: Well --

5 THE COURT: I don't care whether he was there or
6 not. Why don't ask you him was the company label based upon
7 requirements of the FTC and statutes and were any changes in
8 the label required to be so based as well, something to that
9 effect. I don't understand that anybody is claiming that you
10 could have put a different label on the package saying
11 asbestos workers beware or anything like that. You were bound
12 to the label warning, I mean everybody agrees to that.

13 MR. BERNICK: But, again, maybe I'm not putting this
14 the right way, it is not only that we were bound to the label
15 but if we had gotten this kind of suggestion in 1980 from a
16 guy in Britain, the company would have said, wait a minute,
17 the FTC is looking at exactly this issue right now.

18 THE COURT: It didn't make any difference, your
19 position I take it is that you -- even if you thought it was a
20 great idea to change it, you had to follow the FTC.

21 MR. BERNICK: But the underlying need that he's
22 talking about here, the underlying need is not there in the
23 U.S. because the same issue is being considered by the FTC,
24 they're going to take care of it one way or the other.

25 THE COURT: You know, I think that gets us into a

page 3551

page 3552

1 dangerous area, I don't want to get involved in this problem
2 of whether you could have recommended to the FTC or you should
3 have or you felt it wasn't sufficient, that I don't want to
4 get into at all.

5 MR. BERNICK: That's what they've turned the case
6 into, Your Honor. I didn't make it that way.

7 THE WITNESS: Your Honor, could I raise an example
8 that might be relevant and shed light if I may?

9 THE COURT: Yes.

10 THE WITNESS: We have an actual product on the
11 market, we're working with another company with a product on
12 the market, it's called Advance and the standard warning is on
13 there but additional smoking related information is also
14 provided.

15 THE COURT: Your attorney is going to be upset, don't
16 go along those lines any longer.

17 THE WITNESS: Well, all I was going to say, that
18 additional language was run by me for accuracy.

19 THE COURT: Okay, good. Don't say any more.

20 THE WITNESS: Okay.

21 THE COURT: You can ask him whether they were bound
22 to follow the warning on their label.

23 MR. BERNICK: I understand that, okay.

24 THE COURT: And any changes in the label had to be
25 approved by the FTC, that's the position, isn't it?

page 3552

page 3553

1 MR. BERNICK: That doesn't really scratch our itch on
2 this because of what they're claiming here, Your Honor.

3 THE COURT: I don't think they're claiming that you
4 could have done anything, they can't.

5 MR. BERNICK: There is no mistake in this case that
6 their case is entirely -- they can't prove up fraud to beat
7 the band so what this is all about is whether the tobacco
8 companies should have used its billions of dollars to mount a
9 campaign to get the message out to workers, that's what their
10 case is.

11 I have one other issue that maybe Your Honor could

12 help out on and that is that at the time that Dr. Wigand left
13 the stand, that document came out with the list of documents
14 to be destroyed and I objected to it, I objected to it for a
15 bunch of different reasons; number one is that I didn't even
16 know it was going to be displayed; number two, it was being
17 used to suggest there was improper destruction of Dr. Wigand's
18 documents and he wouldn't even know about it because he wasn't
19 there at the company anymore. Now we're placed in a bind, we
20 got this document that's in evidence, I think it should never
21 have been admitted into evidence, I think it was improper to
22 proffer it but it is there to suggest that there was improper
23 conduct.

24 THE COURT: Well, your witness has said there wasn't.
25 MR. BERNICK: That's the problem, though we got an

page 3553

page 3554

1 affidavit from the secretary who wrote it who said this was
2 documents retention, it was copies, it was not original.

3 THE COURT: Where is the secretary?

4 MR. BERNICK: I can go shlep the secretary up here to
5 Brooklyn to testify.

6 THE COURT: Where is she?

7 MR. BERNICK: She's at Brown & Williamson I believe.

8 THE COURT: Where?

9 MR. BERNICK: I don't know -- Louisville. But at
10 this point --

11 THE COURT: It is just a question of putting her on a
12 plane, you don't have to drag her yourself.

13 MR. BERNICK: I think what should happen here, Your
14 Honor, is that that document should be stricken from evidence.

15 THE COURT: I'm not going to do it. It is already in
16 there with your examination. I don't think it was in error
17 but it is in and I'm not going to change it at this time, it
18 is just totally confusing. So bring her in if you'd like and
19 you have this witness' testimony as well.

20 All right, enjoy your lunch. Take another ten
21 minutes, 2:10.

22 MR. WESTBROOK: Thank you, sir.

23 (Time noted: 1:20 p.m.)

24 (Continued on next page.)

25

page 3554

page 3555

1 A F T E R N O O N S E S S I O N .

2 (The jury enters the courtroom.)

3 THE COURT: Proceed, please.

4 MR. LOMBARDI: Thank you, your Honor.

5 CROSS-EXAMINATION

6 BY MR. CORRIGAN:

7 Q. Good afternoon, Mr. Appleton. I'm Mike Corrigan, I
8 represent B.A.T. Industries.

9 A. Good afternoon.

10 Q. I will be less than a minute or two.

11 A. All right.

12 Q. You started working at Brown & Williamson in May of '91,
13 if I recall?

14 A. That's correct.

15 Q. And Dr. Wigand was your boss when you started at Brown &
16 Williamson?

17 A. Yes.

18 Q. I would like to show you a document Dr. Wigand testified
19 about although it was not issued until after he left Brown &
20 Williamson. This is Plaintiffs' Exhibit 9855, entitled

21 Statement of Business Conduct. It was issued by B.A.T.
22 Industries on December 21st, 1993. This was after Dr. Wigand
23 had left.

24 Were you still employed at Brown & Williamson in
25 December of 1993?

page 3555

page 3556

1 A. Yes, I was.

2 Q. Did you receive this document in the ordinary course of
3 your duties?

4 A. No, I did not.

5 Q. Did Brown & Williamson adopt its own standards of
6 business conduct?

7 A. Yes, they did.

8 Q. Let me show you Exhibit GG300010 entitled Brown &
9 Williamson Tobacco Corporation, Standards of Business Conduct.

10 Did you receive that document in the ordinary course
11 of your duties as an employee of Brown & Williamson?

12 A. Yes, I did.

13 MR. CORRIGAN: I offer that in evidence, your Honor.

14 THE COURT: Admitted.

15 MR. CORRIGAN: No further questions.

16 THE COURT: Any other defendant wish to examine?

17 MR. WESTBROOK: Thank you, your Honor.

18 Good afternoon, everyone.

19 JURORS: Good afternoon.

20 CROSS-EXAMINATION

21 BY MR. WESTBROOK:

22 Q. Hello, Dr. Appleton.

23 A. Good afternoon.

24 Q. Dr. Appleton, we refer to you as doctor as a measure of
25 respect because you are a Ph.D., correct?

page 3556

page 3557

1 A. Yes.

2 Q. We have a lot of doctors and Ph.D. doctors, but you are
3 called doctor at the firm, right?

4 A. It depends. People usually call me Scott.

5 Q. Or doctor?

6 A. When there's a formal circumstance, yes, they do that in
7 formal circumstances.

8 Q. I will call you Dr. Scott Appleton.

9 Doctor, is it fair to refer to you as, and I don't
10 mean any criticism by this, as a company man, you come from
11 the company, you represent the company, you're a company man?

12 A. Depends on what you mean by that.

13 Q. Someone who represents the company. Do you represent
14 your company Brown & Williamson here?

15 A. Yes, I am.

16 Q. Sometimes we have witnesses who come into court because
17 they are subpoenaed and they are here involuntarily, but you
18 were told to come up by your company and you came up here,
19 there's no subpoena to be here, was there?

20 A. Not that I'm aware of.

21 Q. So we have a frame of reference, Doctor, it was May of
22 '91 I think I just heard when you joined the company?

23 A. Yes.

24 Q. Everything you've told us about before May of 1991 is
25 information either told by the lawyers or read in documents or

page 3557

page 3558

1 heard from somebody else; is that correct?

2 A. That is the major sources.

3 Q. And over your career at Brown & Williamson you had
4 contact with scientists at BATCO over in England, have you
5 not?
6 A. Yes.
7 Q. I want to start off this afternoon, Doctor, by talking
8 about one of the items you talked about I think it was
9 yesterday with counsel. Do you know who Paul Harvey is?
10 A. Paul Harvey?
11 Q. Yes.
12 A. There is a radio personality named Paul Harvey, yes.
13 Q. Do you know his show when he comes on and before the
14 break he'll tell something and he'll say when we come back
15 we'll have the rest of the story; have you heard that?
16 A. Yes, I heard that.
17 Q. I want to talk to you about the rest of the story.
18 This is DEM01263. Do you recall this chart, sir, the
19 Internal Scientific Research Followed External Trends Skin
20 Painting?
21 A. Yes.
22 Q. Now, you talked to the jury about something called
23 Harrogate research and the Harrogate report, correct?
24 A. Yes.
25 Q. Harrogate report you talked about was a report by a
page 3558
page 3559
1 Dr. Day on some mouse skin painting?
2 A. Yes.
3 Q. I'm going to put AS000559 on the screen here and see if
4 you recognize it as the cover. This report, Carcinogenic
5 Action of Cigarette Smoke Condensate on Mouse Skin, by T.D.
6 Day, is that the report you were talking about, the Harrogate
7 report?
8 A. I believe so, yes.
9 Q. That was published, so we have a reference frame correct,
10 in the March 1997 volume of the British Journal of Cancer; is
11 that correct?
12 A. Yes.
13 Q. So, if we can keep ourselves straight, on this chart
14 here, the Harrogate report, that's the one we're talking
15 about, isn't it?
16 A. Yes.
17 Q. That's 367. Fair enough so far?
18 A. Yes.
19 Q. Now, you didn't tell the jury, though, what the American
20 Tobacco companies thought about Harrogate or what they tried
21 to do? You weren't asked about that, were you?
22 A. No.
23 Q. Let me show you 21253, which is a letter from Dr. Felton
24 to Dr. Green. Do you know them to be BATCO scientists?
25 A. Yes.
page 3559
page 3560
1 Q. Re: E.J. Jacob. Do you know Mr. Jacob was a lawyer in
2 the United States representing the tobacco companies?
3 A. If it is the Jacob I'm thinking of, yes.
4 Q. Let's go down and see if we have the answer.
5 THE COURT: What document number is this?
6 MR. WESTBROOK: 21253.
7 Q. Mr. Jacob was retained jointly by R.J. Reynolds Tobacco
8 Company and Brown & Williamson Tobacco Corporation to advise
9 them on legal aspects of smoking and health, and particularly
10 on aspects of lawsuits in which R.J.R and B&W were
11 codefendants. That's not news to you, is it?

12 A. What's not news to me?
13 Q. That Ed Jacob was representing Brown & Williamson.
14 A. I know he represented the tobacco industry at various
15 times. I just don't know who he represented and what times.
16 It wouldn't surprise me if he was at this point.
17 Q. Let's go down to paragraph C. Mr. Jacob also represented
18 interests of the Council for Tobacco Research. You know that
19 to be CTR?
20 A. Yes.
21 Q. -- U.S., and in that capacity he visited the U.K. around
22 1964 to attempt to dissuade TRC, that's the Tobacco Research
23 Council?
24 A. Yes.
25 Q. The English counterpart of CTR?

page 3560

page 3561

1 A. Yes.
2 Q. To dissuade TRC from undertaking industry sponsored
3 research at Harrogate. At that time, the U.S. legal view
4 appeared to be that the industry should take no part at all in
5 the direction of research, quote, due diligence, unquote, did
6 not seem to be important.
7 Did you know, Dr. Appleton, that in 1964, Ed Jacob,
8 representing CTR -- see if we can find 1964 here -- visits
9 U.K. to discourage Harrogate; did you know that?
10 A. No, I did not.
11 Q. Does that sound like something a lawyer should be doing,
12 trying to discourage scientists from doing research?
13 A. Well, I can understand why a lawyer would have concerns
14 over the potential litigation impact, but ultimately I think
15 the scientist should have the final say in what research gets
16 done and how it gets disseminated.
17 Q. Now, what happened between 1964 and 1967 with respect to
18 this particular article, the Day article; do you know how this
19 article came to be published?
20 A. No, not specifically. I assume it is the normal course
21 of events you do a study, collect the data and publish it.
22 Q. You assume but you don't know?
23 A. No, I don't know.
24 Q. The reason you don't know is because in the normal course
25 of your work at Brown & Williamson you didn't investigate

page 3561

page 3562

1 these things, you've only come to get ready to testify when
2 you talked to the lawyers about them; that's fair, isn't it?
3 A. You mentioned a couple of things and asked me to
4 respond. I investigated a number of things, I looked into a
5 number of things, but I by no means looked into everything and
6 the circumstances surrounding every single report and document
7 that may be a part of this process.
8 Q. Let's look into the process. I'm going to show you
9 Exhibit 20419 which is a document produced from BATCO entitled
10 Papers Relating to Events Connected with Publication of
11 Harrogate Mouse Skin Reports. So that we are clear, the Day
12 study was the Harrogate mouse skin report, wasn't it?
13 A. Yes.
14 Q. This is dated 16th of September 1966. So, this is a
15 paper prepared approximately nine months before the Day paper
16 was published, correct?
17 A. Yes.
18 Q. Now we're talking six months or so before the paper.
19 Let's look at the timetable of events set out in this paper,
20 what's going to happen now, six months before Dr. Day's paper

21 was to be published.
22 Number one, final version of Day/Paige paper approved
23 by TSC. Do you know that to be the technical scientific
24 community of the TRC?

25 A. I'm vaguely familiar with the acronym, yes. It seems --

page 3562

page 3563

1 Q. So, on the 15th of September 1966 the TSC was going to
2 clear the paper and then eight days later Dr. Day's paper was
3 to be cleared by lawyers. Do you see that, sir?

4 A. Yes, I do.

5 Q. 23rd September. Then, following the clearance, number
6 three, the Day/Paige paper then to be sent to CTR U.S.A. by
7 the TRC. Before the paper was published it was to be sent to
8 the CTR in the United States according to this document,
9 correct?

10 A. Yes.

11 Q. Did you know, Dr. Appleton, when you took the stand on
12 direct examination, that the Day paper had been cleared by
13 lawyers acting for the TRC before it ever was submitted for
14 publication; did you know that, sir?

15 A. Assuming that's what actually happened. I see what the
16 document says. It may be that lawyers looked at the paper but
17 from my reading the paper the scientists had the final word.

18 Q. That wasn't my question. Listen to my question, Doctor.

19 Did you know that the paper was to be cleared by
20 lawyers, the scientific paper, before it was submitted, did
21 you know that?

22 A. I don't know if it was cleared or not by lawyers before
23 it was submitted.

24 Q. Now, did you know, also, that the TRC, under paragraph
25 three, following advice from the BJC -- I understand that to

page 3563

page 3564

1 be the British Journal of Cancer publication where the paper
2 was published.

3 A. I haven't heard that acronym. It makes sense.

4 Q. Following advice from BJC that the paper has been
5 accepted for publication, the TRC was going to determine which
6 issue of the British Journal of Cancer to be accepted. It
7 turned out to be the March '67 edition, didn't it?

8 A. Yes.

9 Q. And, then, meeting with the Minister of Health was to be
10 arranged and review of activities to be completed for
11 publication. Did you know that the TRC over in England
12 prepared a paper called Review of Activities that they were
13 going to be prepared to put out about the time the Day paper
14 came out?

15 A. No, I did not.

16 Q. Did you know that the purpose of that review of
17 activities was to blanket the Day paper so it wouldn't get
18 significant publicity; did you know that?

19 A. No.

20 Q. All right, let's go on.

21 TRC review of activities. The director was to
22 discuss the comments already circulated with EC members.
23 Then, the review of activity paper. F, the review was to be
24 sent to lawyers. Then, the review to be sent off to printers
25 and to be ready for publication on date the BJC paper is

page 3564

page 3565

1 published. Then draft of PR documents. Do you understand
2 that to be public relations documents?

3 A. I assume it does. That's what I usually understand that
4 acronym to mean.

5 Q. Including questions and answers to be prepared by
6 Campbell-Johnson Limited. Do you know that to be an English
7 public relations firm?

8 A. No, I don't know.

9 Q. Within two weeks following finalization of the review.
10 Do you know what happened when the Day paper was
11 published?

12 A. No.

13 Q. Look at Exhibit 12933 which is dated June 20th, 1967.
14 That's about two months after the Day paper came out?

15 A. Yes.

16 Q. That's on the letterhead of the TRC, Tobacco Research
17 Council?

18 A. Yes.

19 Q. And it is written to Addison Yeaman. You knew him to be
20 an officer of Brown & Williamson?

21 A. Yes.

22 Q. Let's look at the document entitled Private Letter Number
23 Fifteen. We were pleased on the whole with the treatment that
24 the review received in the popular media, and particularly
25 pleased with the treatment in the medical and scientific media

page 3565

page 3566

1 and with the reaction of the public.

2 Let's go down and see what the TRC -- that's Mr.
3 Todd, the director of the TRC, told Mr. Yeaman of Brown &
4 Williamson. Two months after the Day article.

5 There has not been a single published reference to
6 Tom Day's paper in the British Journal of Cancer. Alan
7 Campbell-Johnson and I were always confident that we would
8 succeed in blanketing this paper so effectively with the
9 review that something like this would be the case despite the
10 fears which I understand you and your colleagues had earlier,
11 according to the reports that Bentley and Co. brought back. I
12 also understand the position is that the publicity given to
13 our review in the states was negligible and so far I have not
14 heard of any further -- of any reference to Day's paper. In
15 view of the fact that we had to publish a review, I hope that
16 you and your colleagues will feel that the reaction, or,
17 rather, the lack of reaction to it and to Day's paper in the
18 states was as satisfactory as could be expected.

19 Dr. Appleton, when you were up there on the stand
20 telling the jury about the good work that was being done at
21 Harrogate and Dr. Day's paper, did you know that the TRC in
22 England in cooperation with the CTR had prepared a review to
23 blanket Dr. Day's paper so the people wouldn't notice that in
24 the press; did you know that, sir.

25 MR. BERNICK: Objection to the form of the question

page 3566

page 3567

1 including the CTR in that particular process.

2 THE COURT: He can answer it or not, as he wishes.

3 A. In the context of the document I don't know exactly what
4 they mean by blanket. I know the paper was published and
5 therefore available to anybody who had access to scientific
6 literature, which is the whole world.

7 Q. Did you know about the TRC letter to Mr. Yeaman?

8 A. No.

9 MR. WESTBROOK: Your Honor, I would like to mark this
10 as DEM012063A.

11 THE COURT: Okay.

12 MR. WESTBROOK: It is an additional time line.
13 Q. You testified on direct examination that, yes, minutes
14 were edited, minutes of meetings were edited, correct?
15 A. Yes.
16 Q. And one of the sets of minutes that you know were edited
17 because you've seen both versions, 36104, are the original
18 minutes of the Vancouver meeting attended by Dr. Wigand and
19 officials from BATCO and Imperial and Brown & Williamson,
20 correct?
21 A. Yes.
22 Q. Imperial Tobacco, is that Brown & Williamson's sister
23 company in Canada?
24 A. Yes.
25 Q. Have you compared the two sets of minutes to see what was
page 3567
page 3568
1 left out of the revised version?
2 A. Yes.
3 Q. I will save some time then. Over on page seven under
4 objectives for product innovation --
5 THE COURT: This is the original or revised?
6 MR. WESTBROOK: Original, your Honor. This is the --
7 THE COURT: They both have been numbered?
8 MR. WESTBROOK: Yes, your Honor. It is the 12-page
9 version. We will refer to the three-page version in a minute.
10 Q. In the 12-page version, the original version, it says ALH
11 -- you know that be Mr. Alan Heard?
12 A. Yes.
13 Q. -- at BATCO introduced this topic with the review of
14 opportunities in what was largely a diminishing market. The
15 major international companies were competing in this area with
16 minor product innovations, but there were a large number of
17 former smokers who were potential customers if some of the
18 health issues that concerned them could be addressed.
19 Dr. Appleton, you know, do you not, that this
20 discussion by the industry of how to attract back former
21 smokers was deleted from the final minutes, don't you?
22 A. I know a number of things were deleted and this appears
23 to be one of them.
24 Q. Do you want to see, sir?
25 A. Sure.
page 3568
page 3569
1 Q. (Hanging.)
2 Was it deleted?
3 A. It looks like from my reading the comparison of the two
4 minutes, it looks like the reduced version basically
5 restricted the minutes to action items of things that were
6 supposed to be done like --
7 THE COURT: Excuse me. It would be easier if you
8 just answered the question.
9 Q. Was this deleted?
10 A. Yes, it was.
11 MR. BERNICK: Your Honor, it has come to my
12 attention the exhibit numbers being read do not correspond to
13 our exhibits. I asked yesterday for copies of the documents.
14 MR. WESTBROOK: I will put them down so counsel can
15 use them. I am finished. I have 36104 on the exhibit
16 sticker. I have no reason to believe that's not the right
17 number.
18 MR. BERNICK: The first three that were used we
19 can't find.
20 Q. Dr. Appleton, before you came to Brown & Williamson, sir,

21 you had published about nine articles in the scientific
22 literature, had you not?
23 A. Papers, yes.
24 Q. And since being with Brown & Williamson in 1991, am I
25 correct that you've never published a paper on any aspect of

page 3569

page 3570

1 smoking and health?
2 A. That's correct.
3 Q. Am I correct that the only paper you've published is
4 something that had to do with estimating the caloric
5 availability of fats in oils?
6 A. That's correct.
7 Q. Dr. Appleton, I don't want to know your salary, I don't
8 want to know your bonus, I just want to know generically you
9 receive a bonus from the company each year depending on the
10 company's performance?
11 A. I receive a bonus depending upon the company's
12 performance. It may not happen each year. It all depends
13 upon the company's performance. Some years a bonus is not
14 available and some years it is.
15 Q. Is part of your performance evaluation which goes into
16 your bonus based on the technical support you give to the
17 legal department?
18 A. Technical support I give to a variety of departments
19 including the legal department, yes.
20 Q. Including testifying at these trials?
21 A. I don't know if that's specifically included. It may
22 be. Just general technical support.
23 Q. Dr. Appleton, when you were hired, were you the only
24 toxicologist at Brown & Williamson?

25 A. I was the only person who had a formal degree in

page 3570

page 3571

1 toxicology.
2 Q. You talked about all the studies with all the arrows this
3 morning. It is true, is it not, you haven't done any hands-on
4 experimental work in any of the studies you talked about, have
5 you?
6 A. I don't do hands-on experimental work --
7 Q. Doctor, if you would just answer yes we will move along.
8 A. I manage a department that does do studies.
9 Q. That wasn't my question.
10 A. Have I done hands-on at the bench, no.
11 Q. One of the first things you did do when you were hired
12 was to go -- hired by Brown & Williamson, was to go to a
13 meeting with the lawyers where they explained to you Brown &
14 Williamson's involvement in tobacco litigation; do you
15 remember that meeting?
16 A. Yes.
17 Q. And you have been asked over the years to come testify
18 for Brown & Williamson at various trials, correct?
19 A. Yes.
20 Q. And when Brown & Williamson's public position was that
21 smoking didn't cause cancer, you testified under oath that you
22 didn't know whether smoking caused cancer or not as recently
23 as a few years ago?
24 A. Well, I'm sorry, you just asked a number of things. You
25 said that Brown & Williamson's position was smoking did not

page 3571

page 3572

1 cause cancer. My recollection since I have been with the
2 company is that has not been Brown & Williamson's position.

3 Q. Let me do it this way. It might be easier. You were
4 shown a number of things Dr. Wigand testified to early in this
5 trial. Let me show you what Dr. Wigand testified at page
6 1121.

7 "When you were at Brown & Williamson were you
8 permitted publicly to say that smoking caused lung cancer?

9 "Answer: No.

10 "Question: Was any scientist at Brown & Williamson
11 permitted publicly to say smoking caused lung cancer?

12 "Answer: No."

13 Dr. Appleton, have you ever publicly stated for the
14 last year or so that smoking caused lung cancer?

15 A. I've not made any public statements in the last year or
16 so, but the last time I testified I said I make the assumption
17 smoking causes lung cancer.

18 Q. Let's look at your testimony under oath in August of
19 1997. In August of 1997, you were asked:

20 "So, in your opinion, does cigarette smoking cause
21 lung cancer?

22 "It may or may not. We don't know.

23 "Does" --

24 THE COURT: Say "question" and "answer" and give the
25 page, please.

page 3572

page 3573

1 MR. BERNICK: If it is being used for impeachment
2 purposes the question that was posed before was during the
3 last year. He is now going back obviously more than the last
4 year. It is not fair impeachment.

5 THE COURT: Overruled. You may continue. Just
6 follow my instruction.

7 MR. WESTBROOK: Yes, your Honor.

8 Q. This is August 5th, 1997, Dr. Appleton, from the State of
9 Texas case.

10 Doctor, what is your formal first name?

11 A. Scott.

12 Q. Let me get the question back here on the screen.

13 "So, in your opinion does cigarette smoking cause
14 lung cancer?

15 "It may or may not. We don't know."

16 THE COURT: Put "question" and "answer" so the
17 reporter will be able to get it right.

18 MR. WESTBROOK: I'm sorry. So the court reporter can
19 get it.

20 Q. "Question: So, in your opinion does cigarette smoking
21 cause lung cancer?

22 "Answer: It may or may not. We don't know."

23 Is that your testimony in August of 1997?

24 A. That's part of my testimony. I don't know if that's my
25 complete testimony.

page 3573

page 3574

1 Q. I understand it went on for pages and pages. Did you
2 give that answer to that question on August 5th, 1997?

3 A. Yes.

4 Q. And you were asked about the other diseases, laryngeal
5 cancer, emphysema. Same answer, it may or may not?

6 A. Right.

7 Q. That was the position of your company in 1997, was it
8 not?

9 A. Correct.

10 Q. And do you understand that your company has now taken the
11 position that smoking does cause lung cancer, it admits that?

12 A. Well --
13 Q. Do you understand that to be your company's position
14 today?
15 A. My understanding of our company's position is the best
16 judgment is that it does cause various diseases, including
17 lung cancer.
18 Q. Not the best judgment. In Brown & Williamson's judgment
19 will you admit that smoking causes lung cancer?
20 A. In Brown & Williamson's judgment, yes, it does. That's
21 our judgment.
22 Q. Three years ago when the company's position was it wasn't
23 proven, you said it may or may not. Today if I asked you that
24 question you'll say it is proven, won't you?
25 A. I won't say it is proven. I will say that's our best

page 3574

page 3575

1 judgment.
2 Q. Do you know that in this case your company has provided
3 -- this is defendant Brown & Williamson amended responses to
4 certain of plaintiffs' fourth requests for admission dated --
5 it appears to be June 18th, 2000. Request number fifteen:
6 Admit that cigarette smoking causes lung cancer. Response:
7 Admitted that, in Brown & Williamson's judgment, smoking does
8 cause lung cancer, as stated publicly on Brown & Williamson's
9 web site.
10 MR. BERNICK: Your Honor, again if this is offered
11 for impeachment it is now the second time it is not an
12 impeaching statement. It is perfectly consistent with what
13 the witness just said. He said in his judgment and Brown &
14 Williamson's judgment. That's what the admission says. It is
15 not impeachment.

16 MR. WESTBROOK: I think that --

17 THE COURT: Are you objecting to the question?

18 MR. BERNICK: I'm objecting to the question and the
19 impeachment because it is not impeachment.

20 THE COURT: Overruled. The jury will decide.

21 Q. Dr. Appleton, do you agree today as you sit on the stand
22 that in your judgment smoking does cause lung cancer as stated
23 publicly on Brown & Williamson's web site?

24 A. Yes.

25 Q. Would you identify for me the scientific study between

page 3575

page 3576

1 August of 1997, when you say it may or may not cause lung
2 cancer, and today, when you now admit it does cause lung
3 cancer, what was the scientific study that caused you as a
4 scientist to change your mind?

5 A. The change in position was not based on a particular
6 scientific study but, rather, a change in emphasis placed on
7 giving greater weight to epidemiological evidence as opposed
8 to experimental evidence. There's two basic types of
9 evidence, experimental laboratory evidence, epidemiological
10 evidence is the other. We felt for various reasons which I'm
11 prepared to explain that it was appropriate to place greater
12 emphasis on the epidemiological evidence relative to the
13 experimental evidence. Nothing has really changed
14 scientifically.

15 Q. Thank you, sir.

16 You're familiar, are you not, with the Frank
17 statement to cigarette smokers?

18 A. Yes.

19 Q. That's for the record 76050.3792. I want to focus with
20 you for a minute, sir, on the statement made by the industry:

21 We accept an interest in people's health as a basic
22 responsibility, paramount to every other consideration in our
23 business.

24 Dr. Appleton, is that something you agree with?

25 A. Yes.

page 3576

page 3577

1 Q. Tobacco industry should put people's health above profits
2 or any other consideration in their business, correct?

3 A. Well, that's not what the statement says, but I agree
4 with the statement that we believe that people's health is
5 paramount to every other consideration, particularly in the
6 context that it dominates our research efforts in trying to
7 figure out a way to make a better product.

8 Q. It is your personal view, is it not, Dr. Appleton, that
9 Brown & Williamson is not in the business of being a public
10 health agency, your business is to make cigarettes?

11 A. That's the business that we're in.

12 Q. But as a cigarette manufacturer do you agree a cigarette
13 manufacturer should put people's health paramount to every
14 other consideration in its business?

15 A. In the context I just described, yes.

16 Q. Doctor, are you aware that in years past Brown &
17 Williamson's sister companies doing the research for Brown &
18 Williamson used code names to refer to diseases caused by
19 cigarette smoking?

20 A. I've heard that. I haven't had personal experience with
21 it. I've seen it referred to in various documents.

22 Q. For instance, do you know that cancer was given the code
23 name "Sever"?

24 A. I have -- as I said, I heard that -- read that in
25 documents, but I haven't actually seen that, observed that

page 3577

page 3578

1 myself.

2 Q. Doctor, you agree with me that cancer is a disease to be
3 diagnosed and treated by medical doctors?

4 A. Yes.

5 Q. And do you recall that there were discussions years back
6 about whether tobacco companies should have medical doctors on
7 the stand?

8 A. That hasn't -- I haven't been involved in such
9 discussions.

10 Q. Do you know who Ernie Pepples was and is?

11 A. Yes.

12 Q. An executive at Brown & Williamson?

13 A. Yes.

14 Q. Do you know that Mr. Pepples was against having a
15 medically qualified person employed by the tobacco industry?

16 A. No, I did not.

17 Q. Let's take a look at 42236 which is notes of a telephone
18 conversation with Ernie Pepples by L.C.F. Blackman. Who is
19 L.C.F. Blackman, sir?

20 A. I believe he is a scientist at BATCO.

21 Q. You know Mr. Heard, you talked about him?

22 A. Yes.

23 Q. And Mr. Moreni?

24 A. Don't know Mr. Moreni.

25 Q. He worked for BATCO?

page 3578

page 3579

1 A. I don't know. I don't know who he is.

2 Q. Telephone conversation with Ernie Pepples. I explained

3 that it was my intention to raise with him, in two weeks time,
4 the question of whether or not there were any objections from
5 the legal standpoint to GR&DC. What does GR&DC stand for?

6 A. Group Research and Development Center.

7 Q. Employing a medically qualified physiologist. Going
8 down: Pepples said that he was 100 percent certain that it
9 was inadvisable to have a medically qualified person in our
10 employment. If subpoenaed, he would have to stand by his
11 professional ethics and speak against the industry. The fact
12 that he was a well known anti-smoking research worker merely
13 emphasized this point. He said there was no possible reason
14 why we should not contract work out to people qualified in
15 physiology, but do not have them on our permanent payroll.

16 Dr. Appleton, were you familiar with this incident?
17 Is it one of the things you investigated as you went back to
18 look at the documents?

19 A. I haven't seen this memo. It is not consistent with my
20 knowledge of who was employed at the time.

21 Q. In 1981?

22 A. Yes, sir.

23 Q. Did you talk to Mr. Pepples about this?

24 A. No, but I know the person who conducted the inhalation
25 work. I know the person who conducted the inhalation research

page 3579

page 3580

1 at BATCO. He is a medically qualified physiologist. He was
2 with them then and is still with them now.

3 Q. Do you know Dr. Rawbone?

4 A. No.

5 Q. Is Dr. Rawbone employed or not?

6 A. I've never heard the name, I don't know.

7 Q. You talked a little bit about on direct minutes of
8 various meetings. Are you familiar with the incident
9 concerning Dr. Green's recording of notes and what was to be
10 done with Dr. Green's recording of notes?

11 A. No, not specifically I don't recall that.

12 Q. This is Exhibit 41332, smoking and health, notes for Mr.
13 Langford.

14 Second paragraph: The problem has been exercising
15 law department in Louisville. That's where Brown & Williamson
16 is located?

17 A. Yes. That's one of their locations.

18 Q. For a year or so, and it was because of the fears
19 entertained that -- it was because of the fears entertained
20 that Pat Kelly attended the St. Ives conference in May this
21 year so he might ensure any records of the conference were
22 innocuous should they come into possession of a plaintiff
23 through discovery.

24 You testified on direct, I think, that you weren't
25 aware of any records being altered. Is that your testimony?

page 3580

page 3581

1 A. Correct.

2 Q. And when you look at records, for instance, you look at
3 this document 42236 that I'm handing to you, there's no way
4 for you to tell whether there has been a paragraph taken out
5 of a draft or language added as you look at that document; is
6 there?

7 A. No, not as I look at a document like this.

8 Q. Then it goes on: In fact, I believe Kelly had great
9 difficulty in agreeing any minutes with Dr. Green and the
10 outcome was that there were no minutes as such, but that
11 Dr. Green prepared his own record of the conference and

12 circulated it to everyone except Brown & Williamson.
13 Let's talk about that for a few minutes.
14 MR. BERNICK: Can we have a copy, please, of 42236?
15 Q. Dr. Appleton, in your research did you investigate why
16 Dr. Green was circulating his notes to all the B.A.T.
17 companies except Brown & Williamson?
18 A. No, I did not.
19 Q. Did you know that there was a request by Brown &
20 Williamson that it not receive certain research information
21 that could be deemed harmful to its smoking and health
22 position?
23 A. No.
24 Q. Doctor, before we get to that let me ask you about the
25 policy at Brown & Williamson.

page 3581

page 3582

1 Did Brown & Williamson have a policy communicated to
2 you that scientists and others should communicate with each
3 other orally whenever possible?
4 A. We had a -- not orally when possible, but I do remember
5 there were guidelines on when you write documents don't over
6 interpret your data, think about what you write about, that
7 sort of thing, but I don't ever remember it being only --
8 communicate orally as opposed to written.
9 Q. All right. Let's put this aside and look at your
10 testimony, sir, from this case in May of this year. You were
11 asked on page 50 --
12 THE COURT: That is his deposition?
13 MR. WESTBROOK: Yes, your Honor, in this case.
14 Q. "Now, I take it you have a mechanism" --
15 THE COURT: Question and answer.
16 Q. "Question: Now I take it you have a mechanism for
17 communicating the results of your literature review to others
18 at Brown & Williamson, right?
19 "Answer: Right.
20 "Question: How do you do that?
21 "Answer: Mostly verbally. Sometimes by E-mail, but
22 it's mostly verbal. If there's a significant finding and
23 someone's interested in it, I might pick the phone up and call
24 them. They might call me and ask me what I know about it,
25 have I seen it, what are my views."

page 3582

page 3583

1 MR. BERNICK: Your Honor, again, this is not
2 impeachment. The particular reason it is not impeachment is
3 he's asked specifically about a policy. If you read the very
4 next question and answer which is not highlighted it confirms
5 there was not a policy or procedure.
6 THE COURT: Do you want him to read the other
7 question and answer?
8 MR. BERNICK: My objection is that this is proffered
9 as impeachment testimony with respect to a question that does
10 not appear there, instead appears beneath. If he is going to
11 be impeached with his deposition there ought to be impeaching
12 testimony.
13 THE COURT: That's overruled. Do you wish him to
14 read line 29 to 25, yes or no?
15 MR. BERNICK: It is immaterial to me, your Honor. I
16 don't need that. I am objecting to the line of inquiry.
17 THE COURT: It is overruled.
18 Q. Dr. Appleton, let's look at the T.H.I.N.K. policy
19 document which is 34415 concerning records management.
20 T.H.I.N.K. Five keys to better records management. Think

21 before you write. Next, honor the temporary document rule.
22 What is that, Doctor?
23 A. My understanding of the temporary document rule is that
24 at the time it is said that records don't need to be retained
25 as long as they don't have an intended business utility beyond

page 3583

page 3584

1 thirty days.
2 Q. You understand this was a policy at Brown & Williamson,
3 don't you, this T.H.I.N.K. program?
4 A. I view it as a guideline.
5 Q. Guideline, policy.
6 Under the temporary document rule, institute spring
7 cleaning. We all know what spring cleaning is. Never just in
8 case, know and follow the guidelines.
9 Let's look at the further document on the policy,
10 34407. To write or not to write; that is the question...
11 Think before you write. Does it really need to be in
12 writing to get the job done? Would a face-to-face
13 conversation or phone call work better? Think twice about
14 what you are writing. Would you feel comfortable if a
15 competitor, the government, or the news media saw a copy of
16 your document? Then it says look for answers to questions in
17 TES video. Who is TES?
18 A. I assume those are the initials for Tommy Sandefur.
19 Q. Did you see the video, sir?
20 A. I don't recall seeing the video.
21 Q. Let's look at 34403 entitled TES video. Intro -- look
22 for answers to questions we've just posed. It says show
23 video. Number five: First think about how you function.
24 Second, what happens to the documents you create? Third, face
25 to face or phone call is usually more effective.

page 3584

page 3585

1 That's the policy you follow, is it not, sir?
2 A. That's just my common practice. I talk to people more
3 than I write to people.
4 Q. Six: Managers and employees should not keep records,
5 just in case... We need to change our work culture.
6 You testified, sir, that one of the things that you
7 did at Brown & Williamson was to be in charge of the library?
8 A. For a time period, yes. I haven't been responsible for
9 it for my entire time at Brown & Williamson, but for a couple
10 of years, yes.
11 Q. Did you keep track of what came into the library?
12 A. I didn't personally. The librarians did that.
13 Q. You testified on direct examination, I think, that you
14 went looking for some documents and you found that they
15 weren't in the library, that they had been taken out to a
16 storage area. Do you remember that?
17 A. Yes.
18 Q. Let's look at Plaintiffs' 37660 which is the report of a
19 visit by Dr. Blackman to B&W Louisville, October 1983,
20 technical notes. Present being Mr. Cornhorst, Reynolds,
21 Esterel and Rhie. Do you recognize those individuals or some
22 of them as Brown & Williamson employees?
23 A. Yes.
24 Q. Project Rio. B&W are keen to participate in the program
25 conceived at the BCAC. What's the BCAC?

page 3585

page 3586

1 A. I don't know what that acronym stands for.
2 Q. And further developed at the research conference. They

3 recognize, however, severe legal implications regarding
4 product liability which have yet to be resolved by the
5 lawyers. Until guidelines are issued, any contact between
6 GR&DC -- that's the group research people in England?
7 A. Yes.
8 Q. -- and B&W should be by telephone. Two possibilities
9 being considered are. They go on and talk about two
10 possibilities.
11 Now, if there conversations are only by telephone
12 there aren't going to be any written memos going back and
13 forth between the companies, are there?
14 A. It is not necessarily the case. Just because people
15 speak on the phone doesn't mean they don't exchange memos
16 also.
17 Q. You read that until guidelines are issued any contact
18 between GR&DC and B&W should be by telephone to say also send
19 along a memo?
20 A. No. You asked a question if people are speaking by the
21 phone that means no memos will be generated. My experience is
22 that people spoke on the phone and memos were also generated.
23 Q. Let's take a look at 37710, British American Tobacco
24 Company, 1994, group technical steering committee minutes.
25 Please find attached a copy of the TSC minutes generated from
page 3586
page 3587
1 the Rio meeting.
2 Summary points arising from the TSC minutes. Do you
3 know what the TSC is?
4 A. Yes.
5 Q. What?
6 A. Tobacco Steering Committee.
7 Q. All right.
8 B&W have instructed group members not to undertake
9 written communication with them until further notice.
10 Alternative communication vehicles are being considered.
11 Do you know the reason for that, sir?
12 A. No.
13 Q. Can you think of any scientific reason why Brown &
14 Williamson would not want the other companies in the group
15 communicating to them in writing; can you think of any reason
16 in science for that?
17 A. From a scientific point of view, no, I can't think of a
18 reason.
19 Q. Let's look at Plaintiffs' 20986. This is a confidential
20 memo from Mr. Hardwick to Mr. Heard. He is at Brown &
21 Williamson, correct?
22 A. Which person?
23 Q. Alan Heard.
24 A. Heard, no. He was with BATCO.
25 Q. He was with BATCO. Ayres and Binns (ph.), entitled
page 3587
page 3588
1 Material for Brown & Williamson.
2 A. I believe these are all BATCO employees.
3 Q. Ray Pritchard, who is he?
4 A. He was with Brown & Williamson.
5 Q. He rang today. That's the English for Ray called him up,
6 huh?
7 A. I presume so.
8 Q. Ray Pritchard rang today. He has received a letter from
9 I.W. Hughes indicating a mechanism for our sending scientific
10 information to B&W. In principle, it will mean our mailing
11 contentious information to a legal man named Maddox.

12 Did you understand Maddox to be a lawyer who worked
13 at a law firm in Louisville?

14 THE COURT: It doesn't say named Maddox. It says
15 called Maddox.

16 MR. WESTBROOK: Sorry, your Honor. Legal man called
17 Maddox.

18 Q. Do you understand Maddox was a lawyer in Louisville,
19 Kentucky?

20 A. It has become my understanding in preparing for the
21 proceeding.

22 Q. An outside law firm?

23 A. Yes.

24 Q. So, what they're talking about is that B&W's sister
25 company is going to send contentious information intended for
page 3588

page 3589

1 Brown & Williamson not to Brown & Williamson but to a lawyer,
2 an outside lawyer, and it was going to be a covering letter
3 from us saying that Millbank -- what was Millbank?

4 A. Millbank was BATCO.

5 Q. A cover letter would say that BATCO, Millbank had asked
6 that he, Maddox, receive it. Do you understand a reason in
7 science, Dr. Appleton, why Brown & Williamson would want
8 scientific information to be sent not to itself directly but
9 to an outside law firm; is there a reason in science?

10 A. No, not that I know of, no.

11 Q. Have you met Mr. Maddox?

12 A. No.

13 Q. Have you been to his office?

14 A. No.

15 Q. Have you ever gone through his files?

16 A. No.

17 Q. Let's look at 20948. B.A.T. group research and
18 development center, January 30th, 1985 memo entitled
19 Information and Materials for the U.S.A.. Heading 1.1 under
20 R&D reports. Do you understand that to be research and
21 development?

22 A. Yes.

23 Q. Under D, the recipient list must not contain the list of
24 any B&W person, nor that of Maddox or of his company. It says
25 see Section 1.2 below. On receipt of the copy of the memo

page 3589

page 3590

1 from Millbank -- you understand that to be BATCO?

2 A. Yes.

3 Q. Three copies of the report should be sent to the U.S.A.
4 They should be addressed to Robert Maddox, Jr. Cover letter
5 should simply state that BATCO, Millbank has asked that he,
6 Maddox, receive the documents. No other statement is
7 necessary.

8 Did you ever see Mr. Maddox doing any science at
9 Brown & Williamson with you?

10 A. I've never met Mr. Maddox, I don't know who he is.

11 Q. Have you ever seen a scientific report on which
12 Mr. Maddox worked?

13 A. No.

14 Q. When you took over supervision of the library,
15 Dr. Appleton, did you have occasion to go back and review the
16 work records of people who worked in the library to see what
17 they were doing over the years?

18 A. Well, I reviewed what they were doing. Is that what
19 you're asking me? I'm not really sure what you're asking me.

20 Q. Let me show you some notes of efforts by people at the

21 library and see if it helps. This is Plaintiffs' 41115 which
22 is by C.S. Lincoln, document summary. Document name says
23 monthly January 1985 statistics. Turning to the next page
24 under library statistics for January of 1985 -- to be fair to
25 you, Doctor, this is about six years, a little bit more than

page 3590

page 3591

1 six years before you got on the scene?

2 A. That's correct.

3 Q. So, let's look at the statistics now. Listing of what
4 types of things were being done. Under comments of type of
5 work being done, on January 16, 1985 request to pull materials
6 for Dr. Esterel. Who was Dr. Esterel?

7 A. He was a scientist at Brown & Williamson.

8 Q. Big job, apparently, much impact.

9 Let's go over. Under the listing here for Joan,
10 describing her activities, number 6: Have spent many hours
11 on special project for law, paren, pulling, looks like a
12 slash, deleting reports, close paren.

13 Did you ever speak with Joan and see what she was
14 doing back there in January 1985 pulling and deleting reports
15 from the library?

16 A. No. I haven't spoken to her specifically about what
17 she's doing back there six years before I arrived.

18 Q. Is Joan still there?

19 A. Yes.

20 Q. Let's talk a little bit about --

21 THE COURT: Mark those, would you, please.

22 MR. WESTBROOK: Yes, your Honor. This will be PA1.
23 Plaintiffs' Appleton 1.

24 Q. Yesterday I was talking with Mr. Brookes. Were you here
25 when I was talking with Mr. Brookes?

page 3591

page 3592

1 A. Here where?

2 Q. Here in the courtroom.

3 A. In town --

4 Q. Yeah.

5 A. -- or in the courtroom?

6 Q. In the courtroom.

7 A. No.

8 Q. Let me show you. I asked him about Brown & Williamson
9 work that had been done on synergy, studies that Brown &
10 Williamson had funded and he said but as far as Brown &
11 Williamson I'm unaware of any such studies that were
12 undertaken by Brown & Williamson. I'm sure again Dr. Scott
13 Appleton, who will be testifying after me, will perhaps be the
14 better person to direct that question to. That's from page
15 3334.

16 So, Dr. Appleton, I'm directing that question to
17 you. Has Brown & Williamson done any original research on the
18 health effects of asbestos exposure, first of all?

19 A. The health effects of asbestos exposure? What do you
20 mean by original research?

21 Q. Same thing you meant when you made a statement in your
22 expert disclosure I am not aware of any original research on
23 the health effects of asbestos exposure or asbestos, tobacco
24 smoke exposure that Brown & Williamson conducted. Whatever
25 you meant.

page 3592

page 3593

1 A. Okay.

2 Q. Now, has Brown & Williamson done any original research on

3 the health effects of asbestos exposure?
4 A. Not Brown & Williamson work per se, no.
5 Q. Has Brown & Williamson done any original research on the
6 health effects of asbestos, tobacco acting together
7 synergistically?
8 A. Responsive research which may have covered that through
9 CTR, but, no, we have not done our own internal active
10 research in that area.
11 Q. I want to talk to you a few minutes about synergy now
12 that we know what Brown & Williamson did or did not do.
13 Have you in the course of your review of the files of
14 Brown & Williamson taken a look to see what Brown & Williamson
15 knew and was told about asbestos, tobacco synergy over the
16 years?
17 A. Some of it. Perhaps not all of it.
18 Q. With respect for Exhibit 43297, the conference on aerosol
19 physics, bearing stamp Brown & Williamson research library a
20 date in 1974, have you seen this document, sir?
21 A. Yes.
22 Q. Did you see it in connection with this case?
23 A. Yes.
24 Q. Getting ready to testify?
25 A. Pardon.

page 3593

page 3594

1 Q. Getting ready to testify?
2 A. Yes.
3 Q. You know without me putting on the screen there's a
4 reference in there -- I will put it on the screen to make it
5 easier. However, it is certain that the risk of bronchial
6 cancer is increased if occupational exposure to asbestos is
7 combined with cigarette smoking, citing Selikoff '68.
8 Did you know in the normal course of your activities,
9 Dr. Appleton, this document was in the library?
10 A. May I see the document, please?
11 Q. My question is did you know this document was in the
12 library before you started to get ready to testify as a
13 witness?
14 A. This particular document, no, I did not.
15 Q. Now, as I understand your testimony on direct, you now
16 agree, do you not, that there is an increased risk in combined
17 exposure to asbestos and smoke?
18 A. What I testified was based on the collective information
19 that would be my judgment.
20 Q. Now, with respect to the Frank statement and the pledge
21 down here we always have and always will cooperate closely
22 with those whose task it is to safeguard the public health, do
23 you know that there was a meeting scheduled to take place in
24 1977 between Mr. Edens of Brown & Williamson and Dr. Bourne
25 who was an advisor to President Carter at the time?

page 3594

page 3595

1 A. I have recollection of such a meeting, yes.
2 Q. Let's take a look at 39563. Is this another document
3 you've seen in preparing to testify?
4 A. When I see it I will let you know.
5 Q. Okay, let's put it up here. From Mr. Pepples to Mr.
6 Eden, B&W Industries, December 13th, 1977. Are you familiar
7 with that, sir?
8 A. Yes.
9 Q. Okay. Who is Mr. Edens in 1977?
10 A. I don't know.
11 Q. You don't know he was the vice president of Brown &

12 Williamson?
13 A. Mr. Edens?
14 Q. Yes.
15 A. No, I didn't know that.
16 Q. Possible area of discussion Dr. Bourne. Do you know that
17 was Dr. Bourne, President Carter's special assistant for
18 health?
19 A. Yes.
20 Q. Mr. Pepples is telling Edens possible things to discuss
21 with Dr. Bourne. Second paragraph: It would possibly be
22 risky to enter areas concerned with why people turn to
23 cigarettes, why they smoke. This will become drug oriented.
24 So, Mr. Pepples wanted Mr. Edens to stay away from
25 that area in discussions with Dr. Bourne, correct?

page 3595

page 3596

1 A. That's what his comment says.
2 Q. All right. It would also be dangerous to go into studies
3 set up by the government to look at cigarettes and asbestos or
4 rubber workers. Similarly, studies based on biological
5 activity and aimed at developing a, quote, safer, unquote,
6 cigarette would be risky. He continues: There should be some
7 area for investigating the high risk occupational hazards but
8 the synergistic effect is the thing to stay away from.
9 Now, if your company has pledged to cooperate with
10 public health officials, those who safeguard the public health
11 in a meeting that your company is going to have with an
12 advisor to the President of the United States, do you know of
13 any reason in science why your executive would be advised to
14 stay away from discussions of the synergy issue?
15 A. For scientific reason, no. There seems to be some
16 context to the next sentence of why he may have made that
17 comment.
18 Q. It concerns me to take shots at other industries openly?
19 A. Yes. I mean, particularly among the circumstances of why
20 he's raising this concern, but you mentioned from a scientific
21 point of view. No, I can't think of a reason why. I really
22 don't know all the circumstances surrounding this issue and
23 position possibly that Mr. Bourne had taken or any of the
24 circumstances.
25 Q. That's fair enough. You weren't there?

page 3596

page 3597

1 A. That's correct.
2 Q. Let's take a look next at a 1982 research conference in
3 Canada which is Exhibit 20461, an article by Dr. Ayres. Do
4 you know who Dr. Ayres was?
5 A. I read the name, but I don't know him.
6 Q. Is he connected with BATCO?
7 A. I believe so.
8 Q. A few years ago when we began the work on the retention
9 of mainstream particulate smoke in the respiratory system, we
10 quickly recognized a key factor was the growth of the aerosol
11 and very high humidities within the lung. It is well known
12 the lung contains a surprising number of asbestos bodies.
13 He goes on and the next paragraph he says: This is
14 presumably open to a degree of experimental validation. We
15 have a few indicative measurements, that stale, aged smoke has
16 lost propensity for growth, but it needs better confirmation.
17 If external people are looking for ways of attacking us there
18 remains the poison dart thesis which runs along the lines the
19 asbestos darts will penetrate the cell structure, as shown by
20 microscopy. If it is coated with condensate then it is a

21 poisoned dart.
22 The condensate he's talking about is tobacco smoke
23 condensate, correct?
24 A. I presume so, yes.
25 Q. In your review of the files, did you see any follow-up on
page 3597
page 3598
1 this discussion by Brown & Williamson or any sister company to
2 investigate this poison dart thesis of asbestos fibers having
3 the condensate of tobacco smoke on them when they're inhaled;
4 did you see any signs of that?
5 A. Internal?
6 Q. In Brown & Williamson, yes, sir.
7 A. No, I have not seen any studies in this area.
8 Q. Have you seen any studies from BATCO, whether in Mr.
9 Maddox's office or got sent over or wherever?
10 A. No.
11 Q. Dr. Appleton, as you sit here today, can you think of any
12 informational document, any pamphlet, any brochure, any public
13 address announcement that Brown & Williamson has made alerting
14 any group of asbestos exposed individuals that smoking could
15 be especially risky for them?
16 A. No, I'm not aware we've done that. I would assume before
17 doing that we would evaluate whether or not that would provide
18 any benefit to somebody, if it was something people didn't
19 already know or were aware of --
20 MR. WESTBROOK: I move to strike after no, we haven't
21 done that.
22 THE COURT: Yes, strike it.
23 Maybe we ought to take a short break.
24 (The jury exits the courtroom.)
25 THE COURT: I have had distributed to each of you the
page 3598
page 3599
1 defendants' request, Court 32, with my mark-ups so you can
2 follow the changes I made, 33, the plaintiffs' request with my
3 mark-ups. That was then put in the form of a typed document,
4 34, which I have then marked up again and that's being retyped
5 now so you can follow the changes I made in your documents
6 readily, and the new one will be marked 34A, the court
7 exhibit, and you'll get that in the morning. That we'll use
8 as a basis for discussion.
9 (Recess taken.)
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page 3599
page 3600
1 (Jury in at 3:25 p.m.)
2 THE COURT: All right, go ahead, please.

3 CROSS EXAMINATION
4 (Cont'd) BY MR. WESTBROOK:
5 Q. Dr. Appleton, let's go back a few years before you were
6 with Brown & Williamson. I want to show you 32053 which is an
7 August 8, 1969 document written by SJG. Do you know who Dr.
8 Green was?
9 A. Yes, I heard the name.
10 Q. S.J. Green?
11 A. Yes.
12 Q. Who was he?
13 A. Scientist for BAT Co.
14 Q. In 1969 Dr. Green wrote -- by the way, doctor, so that
15 we're clear, BAT Co. was the arm of the group that did a lot
16 of research for the various companies in the group and shared
17 research back and forth, correct?
18 A. They all did research but the research they did was
19 central research, research that had general group interest as
20 opposed to individual market interest.
21 Q. And in 1969 Dr. Green wrote the title: Basis For
22 Research In Smoking. Smoking has become an important social
23 question. It is enjoyed by large numbers of people and in
24 varying degrees is of importance to them but evidence from
25 epidemiological studies suggests that smoking may well be

page 3600

page 3601

1 causally related to lung cancer and other diseases. It is
2 true that the epidemiological evidence might support the
3 hypothesis that there are people predisposed to cancer and
4 other diseases. If such people could be identified, it might
5 be possible and would surely be desirable to persuade them not
6 to smoke or to reduce their smoking or to modify the way in
7 which they smoke.

8 Dr. Appleton, since you've been at Brown &
9 Williamson, has Brown & Williamson made any effort in any way
10 to dissuade asbestos exposed individuals from smoking?

11 A. Our web site currently has information on quitting
12 smoking for people who are concerned about the health effect
13 of smoking.

14 Q. Listen to my question.

15 Has Brown & Williamson made any effort to discourage
16 asbestos exposed individuals from smoking?

17 A. The information goes to all people, everyone, including
18 people who are specifically exposed to asbestos.

19 Q. Let me ask you this way.

20 Have they made any special effort besides whatever it
21 said on the web page to the public at large, any special
22 effort to alert asbestos exposed individuals on the web page
23 that they are at special risk? Is there a section on asbestos
24 exposed individuals?

25 A. Brown & Williamson has not singled out any particular

page 3601

page 3602

1 single group and tried to direct any message to any particular
2 group. It goes to everybody.

3 Q. Was there any discussion whatsoever about
4 asbestos/tobacco synergy on the Brown & Williamson web site?

5 A. Not that I'm aware of.

6 Q. Now, you were asked by counsel on direct concerning the
7 1979 Surgeon General's report. Do you recall there were some
8 pages put up there about there was some concern about whether
9 there was synergy or not synergy?

10 A. Yes.

11 Q. 5061 which is the Surgeon General's report. Let me put

12 that back up and direct you, sir, to the conclusion.
13 First of all, the summary section under smoking and
14 occupational exposure. Cigarette smoking acts synergistically
15 with exposure to asbestos to produce lung cancer.

16 You were not shown that on your direct examination,
17 were you?

18 A. On my direct examination, no.

19 Q. Let me show you under the section in the report on
20 asbestos discussing the Lynch & Smith work, it says: In 1968
21 Dr. Selikoff talks about his estimate of risk. Then he goes
22 on and says this study has been continued and is supported by
23 other investigations which consistently show a potent
24 synergism between the carcinogens of tobacco smoke and
25 asbestos.

page 3602

page 3603

1 Were you shown this section on your direct
2 examination, sir?

3 A. No.

4 Q. Let's talk a minute about safer cigarettes.

5 I think you testified and you showed some arrows that
6 various projects designed at producing safer cigarettes were
7 continued over the years and you had some results in the
8 recent past. Do you recall talking about that?

9 A. Yes.

10 Q. And is one of the results this Advance cigarette?

11 A. One of what results?

12 Q. Is this a safer cigarette in your view, Advance?

13 A. No, we don't characterize it as that or claim it's a
14 safer cigarette.

15 Q. What role does Brown & Williamson play in Advance?

16 A. We have provided some product development work. We have
17 done the manufacturing on a contract basis for the product.

18 Q. This is the cigarette that is supposed to have lower
19 nitrosamine levels?

20 A. Yes, it has lower levels of specifically nitrosamines
21 than conventional cigarettes.

22 Q. This is a pack of Advance as it's offered in the market?

23 A. Yes.

24 MR. WESTBROOK: Your Honor, we move Plaintiff's
25 Exhibit 807, a pack of Advance into evidence. I think that

page 3603

page 3604

1 there may be one in evidence already.

2 MR. BERNICK: No objection.

3 THE COURT: 80 --

4 MR. WESTBROOK: 8077.

5 THE COURT: Admitted.

6 (So marked Defendant's Exhibit 8077 in evidence.)

7 Q. There was some discussion during your direction
8 examination about nicotine and I want to cover a little bit of
9 that with you, sir.

10 I know you were shown Mr. Yehman's memo from 1963
11 which was Plaintiff's Exhibit 435 where it says: Moreover,
12 nicotine is addictive. We are, then, in the business of
13 selling nicotine, an addictive drug.

14 Do you recall that was said internally in 1963?

15 A. I'm familiar with the document.

16 Q. Are you familiar with the fact that 31 years later, in
17 1994, Brown & Williamson issued a press release saying that it
18 firmly maintains its position that nicotine in cigarettes is
19 not addictive, are you aware of that?

20 A. I'm not specifically aware of that press release. I

21 don't recall that press release.
22 Q. Let me show you Exhibit 44084 which it's a news release
23 from Brown & Williamson, May 19, 1994, from Tom Fitzgerald as
24 the contact.

25 Do you recognize the Brown & Williamson logo?

page 3604

page 3605

1 A. Yes.

2 MR. BERNICK: I believe that that subject matter is
3 within the purview of the order involving the Congressional
4 proceedings in the case.

5 MR. WESTBROOK: I have reference to one sentence in
6 the document.

7 THE COURT: Redact the rest of it.

8 Q. And I simply want to ask you, sir, and I'll show you the
9 whole document so you can see it, can you read the final
10 sentence of the press release: Brown & Williamson firmly
11 maintains its position that nicotine in cigarettes is not
12 addictive. Do you see that, sir?

13 A. Yes, I do.

14 Q. Do you see that is the last sentence of the press
15 release?

16 A. Yes.

17 MR. WESTBROOK: We move the redacted press release
18 into evidence.

19 THE COURT: Admitted.

20 (So marked Plaintiff's Exhibit 44084 in evidence.)

21 Q. You were asked some questions about ammonia, do you
22 remember those?

23 A. Yes.

24 Q. Whether ammonia has an effect on a nicotine transfer pH,
25 general subject area?

page 3605

page 3606

1 A. Yes.

2 Q. Let's take a look at some Brown & Williamson documents on
3 that issue.

4 First is 37336 entitled Control of Gross Smoke
5 Deliveries B&W perspective, by Mr. Perston Deines in B&W
6 Louisville.

7 Do you know Mr. Deines?

8 A. Deines, yes, I know him.

9 Q. Who is he?

10 A. A former B&W employee.

11 Q. Introduction. This paper gives an overview on how B&W
12 designs cigarettes to control the deliveries of tar,
13 nicotine/tar and carbon monoxide.

14 This is apparently a presentation he gave because it
15 says paper to slide. Slide 4: Scientists who present papers
16 will use slides to illustrate the talk?

17 A. If they are giving a presentation, they may prepare
18 presentation slides. This apparently was a presentation.

19 Q. Under the heading controlling tar and nicotine ratios,
20 Mr. Deines says -- that is that EBR?

21 A. Yes, it says EBR.

22 Q. What does that stand for?

23 A. That is an acronym for a particular type of reconstituted
24 tobacco.

25 Q. Reconstituted tobacco contains ammonia?

page 3606

page 3607

1 A. It contains ammonia-containing ingredients.

2 Q. He said that EBR, the money-containing ingredient,

3 contains reconstituted tobacco and that ammonia treatment
4 increases nicotine transfer. Do you see that?
5 A. Yes, I do.
6 Q. By the way, you are not a chemist, are you?
7 A. I've taken a lot of chemistry courses, but I haven't got
8 a formal degree in chemistry.
9 Q. Under: Needed technologies and understanding, Mr. Deines
10 asked this question, is he Dr. Deines?
11 A. Yes.
12 Q. Dr. Deines says: How can nicotine transfer efficiencies
13 be increased ESPN?
14 THE COURT: E G I think it is.
15 MR. WESTBROOK: What do you think it is.
16 THE COURT: E G.
17 Q. Yes, E G. What processes exist other than ammonia
18 treatments that will liberate more nicotine. So Dr. Deines is
19 recognizing there that he already knows that ammonia treatment
20 will liberate more nicotine and he is asking what other
21 treatments Brown & Williamson can look at. Isn't that a fair
22 reading of that document?
23 A. I see he is asking a question. I don't know if this
24 shows that he recognizes that ammonia can actually do this.
25 Q. You were shown the Root Technology Handbook. This is

page 3607

page 3608

1 actually a handbook that Brown & Williamson leaf blenders and
2 product developers relied on?
3 A. I don't know if they relied on it or not. I know that
4 the document was prepared within Brown & Williamson.
5 Q. It was prepared in February 1991 before you got there?
6 A. Yes.
7 Q. It says: Not to be copied or shown to unauthorized
8 person. So this was information Brown & Williamson wanted to
9 keep within the company?
10 A. Yes.
11 Q. Root Technology, A Handbook For Leaf Blenders And Product
12 Developers.
13 THE COURT: Has this been introduced already?
14 MR. WESTBROOK: Yes, your Honor, this is Exhibit
15 8919.
16 Q. Under the heading of what ammonia does: Cigarette
17 smoke. Ammonia is entirely different. It effectively
18 scavenges those smoke compounds that lead to harshness. It
19 can liberate free nicotine from the blend.
20 MR. BERNICK: Is this simply a reiteration of what
21 has already been shown to the jury?
22 THE COURT: I can't hear you.
23 MR. BERNICK: Is this simply a reiteration of what
24 has already been shown to the jury?
25 THE COURT: This is cross-examination. He testified

page 3608

page 3609

1 on direct about this issue.
2 MR. WESTBROOK: And this document.
3 THE COURT: Excuse me. You may continue.
4 Q. It can liberate free nicotine from the blend. Do you see
5 that, sir?
6 A. Yes, I see that.
7 Q. This document was prepared by experts at Brown &
8 Williamson, experts in chemistry?
9 A. I wouldn't say they are experts in chemistry. I don't
10 know, I know a lot of people contributed to this but they
11 weren't chemists per se. Some of them may have had degrees in

12 chemistry, some may not.
13 Q. The people who prepared this document were the people who
14 Brown & Williamson selected to prepare this internal sensitive
15 document that was not to be shown outside the company, these
16 are the people here that the company selected, right?
17 A. Yes, well that's who it says it's prepared by.
18 Q. Aulbach, Black, et cetera. Do you know these
19 individuals?
20 A. I know most of them but not all of them.
21 Q. It wasn't just individuals selected there, the handbook
22 was actually the work of many scientists within Brown &
23 Williamson from associated BAT companies, so a lot of
24 scientists got together and put this document together to be
25 used by Brown & Williamson, correct?

page 3609

page 3610

1 A. That's what the statement says.
2 Q. After all those scientists from the BAT companies got
3 together and put their input in and came out with this
4 document, the document says under the heading: What ammonia
5 does, it can liberate free nicotine from the blend. That's
6 what it says?
7 A. The document shows no data or evidence but that's what it
8 says.
9 Q. Let's take a look at 18107 which is a document from
10 August 24, it looks like 1978: Future consumer reaction to
11 nicotine from Mr. Steele to Mr. McCue. Did you know Mr.
12 Steele or Mr. McCue?
13 MR. BERNICK: I object. This document, the witness
14 did not testify to consumer reaction. This is beyond the
15 scope.
16 THE COURT: I don't know what the question is going
17 to be.
18 Q. My question, this document is 18107 is in evidence. Very
19 few consumers are aware of the effects of nicotine, i.e., its
20 addictive nature and that nicotine is a poison.
21 Dr. Appleton, in your review of documents at Brown &
22 Williamson before you came here to testify, did you review
23 this document when you were talking about all the articles on
24 nicotine and whether people out there would have known or paid
25 attention to them?

page 3610

page 3611

1 A. If you are asking me have I seen this document before.
2 Q. Yes.
3 A. No, I haven't.
4 Q. Do you know who Mr. Steele was?
5 A. No.
6 Q. How about Mr. McCue?
7 A. No.
8 Q. Have you been involved, sir, as an expert in nicotine
9 matters within the company?
10 A. Some matters.
11 Q. Were you involved at all in preparation of a document
12 such as this studying when consumers understood what nicotine
13 did in cigarettes?
14 A. No, I haven't been involved in the preparation of
15 documents like the one we see here.
16 Q. Dr. Appleton, is it your belief, sir, that the tobacco
17 industry should have relied on the asbestos industry to alert
18 it to the hazards of synergy?
19 A. Could you rephrase your question?
20 Q. Is it your view, sir, that the tobacco industry didn't

21 have to do research on the health effects of asbestos and
22 tobacco synergy because it just should have sat back and
23 relied on the asbestos industry to do it for it?
24 A. My opinion is what we should have done was watched our
25 business, but we were aware that other people were dealing

page 3611

page 3612

1 with the issue, the regulatory agencies, asbestos
2 manufacturers, OSHA and a variety of other public health
3 agencies were dealing with the asbestos issue and we were
4 aware of that while we were keeping track of our business
5 which is the tobacco issue.

6 Q. Let me show you your expert disclosure.

7 THE COURT: What is this document?

8 MR. WESTBROOK: This is Dr. Appleton's expert
9 disclosure which is marked as Appleton 13.

10 Q. You talked about that first sentence that no original
11 research was done. While Brown & Williamson followed the open
12 scientific literature on the health effect of its own product,
13 I rely on asbestos manufacturers and regulatory authorities to
14 disclose their own knowledge and research regarding the health
15 effects of their products and to take appropriate action as a
16 result.

17 Dr. Appleton, is it your testimony that the tobacco
18 industry was sitting back and waiting for the asbestos
19 industry to take care of this synergy problem?

20 A. I don't believe that was my testimony.

21 Q. What was the tobacco industry doing about the
22 asbestos/tobacco synergy problem, what was it doing?

23 A. The tobacco industry, as I already testified earlier was,
24 spending a lot of time and effort and resources researching 2
25 major areas. One is the fundamental aspects associated with

page 3612

page 3613

1 smoking and health and the other is its own product work to
2 determine if it can find some way to fix the product to the
3 extent to which the problems associated with tobacco use could
4 be identified and corrected. Presumably that would also
5 correct and fix any interaction between tobacco and asbestos.
6 We were looking at and focusing on our own product and we had
7 been spending a great deal of resources, efforts, both as I
8 said in fundamental research on tobacco issues and on product
9 development, trying to improve our product and to the extent
10 those questions could be answered or resolved, then presumably
11 that would also affect any joint effect of tobacco and
12 asbestos exposure.

13 Q. Dr. Appleton while you were relying on the asbestos
14 manufacturers, did anyone at Brown & Williamson contact
15 anybody at Johns-Manville and say: Hey, let's work on this
16 problem together; let's see if we can find a solution to this
17 increased risk; did anybody do that to your knowledge?

18 A. I'm not aware if that happened or not.

19 Q. Did Brown & Williamson ever fund an epidemiological study
20 on the asbestos population of smokers to determine the extent
21 of their risk?

22 A. Not to my knowledge.

23 Q. Did you know that Dr. Selikoff was perhaps the most
24 famous researcher in this country in this area in the '60s and
25 '70s?

page 3613

page 3614

1 A. I believe he was the prominent researcher in that area.

2 Q. Did Brown & Williamson ever give Dr. Selikoff one penny

3 to assist him in his work on asbestos/tobacco synergy, yes or
4 no, did it give him a penny to your knowledge?
5 A. Not directly but indirectly we did work with him on work
6 in that area.
7 Q. Did Brown & Williamson take out its wallet and give Dr.
8 Selikoff a penny, yes or no?
9 A. To my knowledge, we did not directly fund Dr. Selikoff.

10 MR. WESTBROOK: Thank you, sir.

11 THE COURT: Any redirect?

12 MR. BERNICK: Yes, I have a few minutes of
13 redirect.

14 REDIRECT EXAMINATION

15 BY MR. BERNICK:

16 Q. Let's just begin with what was just being discussed here,
17 Dr. Appleton.

18 Let's go back over questions about who was doing what
19 and relying on what.

20 First of all, counsel asked you some questions about
21 internal documents and whether we knew something that other
22 people didn't know. He showed you Exhibit 43297.

23 Let's just get a perspective.

24 In all the questions that counsel asked you, did he
25 ask you a single question about whether the tobacco industry

page 3614

page 3615

1 knew something about synergy before Selikoff did in 1968?

2 A. Not that I recall, no.

3 Q. Let's now go to the period 1968 to 1979. Selikoff is out
4 there in the open, people are doing follow-up research. He
5 showed you this document, this document 43297, dated September
6 1973, Counsel an aerosol physics.

7 Incidentally, is this a BAT Co. document that was
8 produced from Brown & Williamson's files?

9 A. Yes.

10 Q. Somehow with all that rooting, it's in Brown's files
11 today?

12 A. Yes.

13 Q. And he showed you very specifically this quote down
14 here. It says: However, it is certain that the risk of
15 bronchial cancer is increased if occupational exposure is
16 combined with cigarette smoking.

17 The citation there is to Selikoff 1968. That is a
18 citation to a public document?

19 A. Correct.

20 Q. Is there anything in this whole 1973 report that reflects
21 that somehow we knew something about asbestos and synergy that
22 nobody else knew?

23 A. No. And let me also add this is not a Brown & Williamson
24 document, this is a research report by an external
25 investigator who reported his findings at a conference that

page 3615

page 3616

1 was held by BAT Co. but he was one of the guest speakers at
2 the conference and then he was giving his paper in his
3 presentation. He refers to something that was in the
4 published literature that everybody had access to.

5 Q. So this one document that was shown to you of what it is
6 that we knew is a presentation by an outside researcher at a
7 conference attended by BAT Co., written up, ended up in Brown
8 & Williamson's files, fair?

9 A. That's fair.

10 Q. Is the subject matter of this conference report, is even
11 the subject matter of that report that was shown to you by

12 counsel, is the subject matter that synergy?
13 A. No.
14 Q. There was then the reference to something to do with
15 poison darts or something like that, Mr. Aire's paper that was
16 shown to you?
17 A. Yes.
18 Q. Is the poison dart theory something the Surgeon General
19 himself reported on in 1980?
20 A. It's not referred to as the poison dart theory, what I
21 refer to as the Becker theory.
22 Q. Page 171198, Surgeon General's report, GK300318. Does
23 that talk about this vector theory?
24 A. Yes, it does.
25 Q. That is 1980, is that somehow some kind of secret that
page 3616
page 3617

1 only Brown & Williamson knew about?
2 A. No.
3 Q. Has he shown you anything, anything out of any internal
4 document that was somehow, some kind of secret appreciation or
5 a new data about synergy?
6 A. No.
7 Q. Let's talk about the research that was actually being
8 done. He talked about the epidemiological research here that
9 showed risk and about the research into laboratory and into
10 the mechanism and hypotheses there.
11 Let me ask you this: I talked with you on direct
12 examination about the research that is actually being done.
13 He spoke with you about who it was that Brown & Williamson or
14 the other companies were relying upon and you gave an answer
15 that talked about OSHA.
16 Was OSHA involved in this issue publicly?
17 A. OSHA basically was initiated and started as a result of
18 the asbestos issue and they have been involved in it heavily
19 since 1970.
20 Q. Was NIOSH involved in this issue?
21 A. Very much so.
22 Q. Was the Public Health Service involved in this issue?
23 A. Yes, they were.
24 Q. Was the surgeon gentleman involved in this issue?
25 A. Yes, they were.
page 3617
page 3618

1 Q. Were outside researchers involved in this issue?
2 A. Very much so.
3 Q. Was there research that was being conducted on any and
4 all aspects of this issue?
5 A. Yes.
6 Q. Has counsel asked you a single question or shown you a
7 single document that demonstrates that somehow in all of this
8 research being done, they were missing the boat, there was
9 something they were supposed to be doing and didn't?
10 A. No.
11 Q. As you sit here today, after having been shown all these
12 materials, is there any item of research that somehow was out
13 there to be done that the tobacco companies could have done,
14 would have done better and would have changed anything about
15 this history?
16 A. No.
17 MR. WESTBROOK: Objection to what could have been
18 done, would have changed anything.
19 MR. BERNICK: It's a follow-up.
20 THE COURT: I'll allow it.

21 A. No.
22 Q. One thing is pretty concrete. Reliance on warnings.
23 Weren't warnings being taken up as an issue in this area?
24 A. Yes, warnings were being imposed in various areas of
25 managing asbestos materials.

page 3618

page 3619

1 Q. One thing that was concrete and I can't fit on that page
2 because the page is all filled up, one thing that was concrete
3 that the companies could work on and work on better than
4 anybody else, what was that?
5 A. You mean the tobacco companies?
6 Q. Yes.
7 A. Our own product.
8 (Continued on next page.)
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page 3619

page 3620

1 REDIRECT EXAMINATION (Cont'd.)
2 BY MR. BERNICK:
3 Q. And what was it?
4 THE COURT: Excuse me, excuse me, put a number on it
5 but it is best not to write what he's going to say before he
6 says it. It is best not to write on the chart what he's going
7 to say before he says it.
8 MR. BERNICK: I knew what the answer was going to
9 be.
10 THE COURT: No, it is very efficient.
11 Q. Everybody says this, Dr. Appleton, everybody says it,
12 what the tobacco companies knew best of all was?
13 A. Our product.
14 Q. Our product. Okay. And in all of the questions that
15 were asked of you today with the benefit of all the times that
16 you've testified and all these documents that are sitting here
17 and sitting there and all this testimony, was there one
18 question that was asked of you that suggested that somehow all
19 the work you were doing to improve the product and reduce
20 risk, that somehow you guys missed the boat?
21 A. No.
22 Q. And if this product has gotten reduced risk, if the risk
23 comes down as everybody hopes that it has because of low
24 delivery, what is it that that does to synergy?
25 A. Well, presumably it would reduce any risks that arise
page 3620
page 3621
1 from that particular situation as well.
2 Q. Research continues in this area, Dr. Appleton?

3 A. Yes, it does.
4 MR. BERNICK: I want to offer the IRAC returns
5 reports, GN 100682, GN 100683.
6 Q. Was Dr. Wehner already researching specifically synergy
7 in the laboratory in 1975?
8 A. Yes, he was.
9 Q. That's GR 001054. Has anyone yet figured out that
10 laboratory mechanisms, if we opened up the laboratory, anyone
11 yet today figured out the mechanism?
12 A. As I said before, there are several hypotheses but none
13 are proven.
14 Q. Incidentally, there was a whole conference that was
15 sponsored by R.J. Reynolds dealing with the biological
16 interaction of inhaled mineral fibers in cigarette smoke?
17 A. Yes, there was.
18 Q. That took place when?
19 A. It took place 1986, '87 somewhere in that time frame.
20 Q. That's the time that Reynolds was facing some litigation
21 as well, correct?
22 A. Yes.
23 Q. Is this whole book comprised of people who had been
24 invited to come in and talk and present about synergy?
25 A. Yes, this is a conference that was outside investigators

page 3621

page 3622

1 who were presenting their research on this issue and the whole
2 conference was captured, the proceedings were published and
3 this is it.
4 Q. Dr. Wehner was the main person in that process?
5 A. Yes W.
6 Q. And again litigation --
7 THE COURT: Excuse me, would you mark it for
8 identification or offer it please.
9 MR. BERNICK: Can I put a 15 on it, Tom?
10 MR. SCHROEDER: Yes.
11 Q. And again, with respect to number 15, there was
12 litigation going on, Reynolds also was focused on the
13 litigation, was that straight up good scientific work and was
14 it a good idea to get all those scientists together?
15 A. I think it was because what the scientific process
16 requires every now and then is people do research, they
17 publish their work but part of the process of doing good
18 science is to gather all that you pull together. This was an
19 attempt to pull all together all the information in one
20 particular focussed area, namely cigarette smoke and asbestos
21 interaction effects.
22 Q. I've got to ask again about addiction. We all know Brown
23 & Williamson changed its position with regard to addiction, we
24 all know that, right?
25 A. Well, we recognized the current definition and as it is

page 3622

page 3623

1 commonly understood, it is regarded as addictive, yes.
2 Q. We've got all of these, addictive habit, habit of
3 addiction, a lot of people changed labels over time, would
4 that be fair?
5 A. Yes.
6 MR. WESTBROOK: Objection, leading.
7 MR. BERNICK: I'm just trying to get to a question.
8 MR. WESTBROOK: He's just testifying.
9 MR. BERNICK: I want to get to a question.
10 Q. 1964 comes along and just to be clear, when the tobacco
11 companies took the position prior to recent times that

12 cigarette smoking was a habit, not an addiction, was there any
13 reliance placed by Brown & Williamson on what the Surgeon
14 General had decided in 1964?

15 A. Well, yes, we looked at everything but this is obviously
16 an authoritative source.

17 Q. And the Surgeon General said habit in '64?

18 A. That's correct.

19 Q. Now, regardless of whether the label is habit or the
20 label is addiction, is there any difference from what Brown &
21 Williamson has said today versus what the Surgeon General said
22 in 1964 when he said: Thus, correctly designating the chronic
23 use of tobacco as habituation rather than addiction carries
24 with it no implication that the habit may be broken easily;
25 has that always been Brown & Williamson's position?

page 3623

page 3624

1 A. Yes, we recognize that for some people smoking is
2 difficult to quit.

3 Q. Now, a document was shown to you about consumer reaction
4 saying most consumers don't know that nicotine is a poison,
5 remember seeing that?

6 A. Yes, I remember seeing that.

7 Q. In your own experience how many consumers, how many
8 people who are smokers or non-smokers, how many people don't
9 know that once you start it is hard to quit?

10 A. I think most consumers know that if not all.

11 Q. No matter what the label is, fair?

12 A. Right.

13 Q. We have been shown again the leaf blenders manual and
14 just a question, they took more quotes just like Dr. Wigand
15 did, we saw those questions all over again. Let me ask
16 another question.

17 MR. WESTBROOK: I object to the introduction to the
18 question.

19 MR. BERNICK: That's exactly what happened.

THE

COURT: Try to just ask questions.

21 Q. Was the leaf blenders manual ever intended to be the
22 definitive research study with regard to any aspect of
23 nicotine and ammonia?

24 A. The researcher's handbook is not -- I mean the leaf
25 blenders handbook is not research, it is not a study, it is

page 3624

page 3625

1 not investigation. It presents very little data at all but it
2 presents no data to support the contention that ammonia
3 liberates free nicotine or increases nicotine transfer
4 efficiencies and what have you other than the bit that I went
5 over this morning and I provided an explanation for that.

6 Q. And that was nicotine transfer efficiency?

7 A. Correct.

8 Q. Now, apart from even what appears in the root technology
9 handbook, nicotine transfer efficiency, is that something that
10 actually has been studied both by Brown & Williamson and other
11 folks?

12 A. Yes.

13 Q. Okay. And based upon not only the Brown & Williamson
14 data but the outside literature, tell the jury does adding
15 ammonia increase nicotine transfer efficiency or not?

16 A. No, it does not. I've seen statements to that effect in
17 documents but I haven't seen any data whatsoever and I think
18 the important thing is where is the evidence, where is the
19 data.

20 Q. Now, if you actually had a change in the nicotine

21 transfer efficiency, what ultimately would that do to the
22 amount of nicotine that is reflected in the FTC delivery
23 rating?
24 A. Well, what it would probably do is push it outside the
25 FTC rating which would mean that the product does not conform

page 3625

page 3626

1 to the FTC ratings that are gathered and published by the
2 Federal Trade Commission. The Federal Trade Commission
3 involves -- gets its numbers on nicotine deliveries and tar
4 delivery for all U.S. products, publishes them every year in
5 an annual report and if we did something to our cigarette to
6 suddenly push one constituent outside the range it would
7 normally be, that would be identified very quickly and be a
8 problem for us.

9 Q. If ammonia were to increase nicotine transfer efficiency,
10 would that or would that not be reflected in the machine
11 delivery rating?

12 A. Yeah, it would be reflected in the machine delivery
13 rating.

14 Q. If it were reflected in the machine delivery rating,
15 would Brown & Williamson have the obligation under the FTC
16 regulations to show that in the numbers?

17 A. It would show in the numbers, it would be something
18 publicly available to everybody.

19 Q. No matter whether there is nicotine transfer efficiency,
20 no nicotine transfer efficiency, the bottom line is that the
21 nicotine actually delivered through the machine method, does
22 it or does it not reflect the end result?

23 A. It reflects the end result.

24 Q. There were questions asked of you about --

25 (Counsel confer.)

page 3626

page 3627

1 Q. Mr. Westbrook added his penmanship to our time line,
2 Dr. Appleton, remember he put all those lines up there?

3 A. Yes.

4 Q. Now, when we started out down this road we started out
5 with a document that had been shown to the jury by the
6 plaintiffs in their case, that was the document that said in
7 February 1966 we would like to see the paper, this is the
8 lawyers talking, admittedly with the hope of slanting the
9 report; remember we started out with that?

10 A. Yes.

11 Q. And then you were good enough to take us through the
12 process of saying, well, did it happen and look at the test,
13 is the report slanted or not, remember your direct
14 examination?

15 A. Yes, I remember that.

16 Q. Now, counsel for the trust is saying, oh, gee, there are
17 a lot of other events that took place, like there's this memo
18 from Dr. Felton twelve years later that talks about a visit by
19 Mr. Jacob in 1964 and he showed a couple of other documents;
20 do any of the documents and any of those events that were
21 squiggled on the time line, did any of them change your
22 analysis of whether in fact this report was actually slanted?

23 MR. WESTBROOK: Objection, Your Honor, he can't know
24 without seeing the original documents which he's never seen.

25 THE COURT: No.

page 3627

page 3628

1 MR. BERNICK: That is absolutely wrong.

2 Q. Do they change your assessment of whether the final

3 report was slanted?
4 A. No. When I look at any report no matter who publishes
5 it, on what side of the issue, there is always a possibility
6 information can be slanted. What I always do is look at the
7 data itself and see if the interpretation given by the author
8 reflects the data that is presented. In this case I believe
9 that it was.
10 Q. And in fact you showed the jury on your direct
11 examination that the report as it actually issued had exactly
12 the result that the lawyers were worried about, right?
13 A. That's correct.
14 Q. Okay. Now, there was reference made to the fact that,
15 well, gee, then there was the PR, the PR, and this document
16 here, 12933, which is almost impossible to read but it
17 basically says that Alan Campbell and I always -- were always
18 confident that we would succeed in blanketing this paper so
19 effectively with the review that something like this would be
20 the case despite the fears which I understand you and your
21 colleagues had earlier according to the reports that Bentley &
22 Company brought back.
23 Now, the review, did he actually show you the review
24 itself to see whether this was some kind of glossy PR piece
25 that whitewashed the Harrogate report?

page 3628

page 3629

1 A. No.
2 Q. Never showed you that. Did he show you what the review
3 actually said about the data in the Harrogate report and its
4 significance?
5 A. No.
6 Q. Did he show you what Harrogate decided to do after the
7 first report was done to continue to work in this area?
8 A. No.
9 Q. Okay. Now, this, reports that, gee, there wasn't an
10 awful lot of newspaper coverage in the United States about
11 these events, that somehow the Day report didn't stir the
12 papers here in the United States to cover this wildly exciting
13 news about mouse skin painting. Let's go back in the United
14 States, how old by 1967 when the Harrogate report came out,
15 how old was the news in the United States that cigarettes were
16 positive on mouse skin painting?
17 A. At least seven years.
18 Q. At least seven years?
19 A. Well, I take it back, more than that, about 13 years, 13
20 or 14 years.
21 Q. And the significance of the Day report as you've
22 indicated is it showed that the Winter study was not an
23 artifact?
24 A. Correct.
25 Q. That the old condensate was the same as the new

page 3629

page 3630

1 condensate, that new smoke wouldn't make a difference?
2 A. Correct.
3 Q. Can you imagine the New York Times getting all excited
4 over old condensate and new condensate?
5 THE COURT: Don't, let's not get on the New York
6 Times please.
7 Q. A lot of reasons why the press would be interested in the
8 Day report.
9 A. It is just another study which had followed many for the
10 past 14 years or so that indicated that cigarette smoke
11 condensate produced a positive response on mouse skin, a

12 positive carcinogenic response.
13 Q. You were shown these notes -- indeed, in the United
14 States by the time the Day report came out the Surgeon General
15 had already reached the conclusion that cigarettes caused
16 disease?

17 A. That's correct.

18 Q. You were shown these notes -- actually let's go back,
19 Kendrick Wells writes in January 1985 on document retention,
20 January 17, 1985, and he makes his proposal saying I said -- I
21 suggested that Earl have the documents indicated on my list
22 pulled, put into boxes and stored in the large basement
23 storage area. I said that we would consider shipping the
24 documents to BAT when we had completed segregating them. I
25 suggested that Earl tell his people that this was part of an

page 3630

page 3631

1 effort to remove deadwood from the files and neither he nor
2 anyone else in the department would make any notes or lists.

3 Then he mentions Carol Lincoln, she was the
4 librarian, right?

5 A. Correct.

6 Q. Now, this is on January the 17th and the requests to pull
7 documents that counsel showed you from the librarian's notes
8 during this period of time are actually references beginning
9 literally the day before the memo was issued, request to pull
10 materials for Dr. Esterel, big job, much impact. And then
11 there's a later item that I think occurs, I forget, I can't
12 actually pull this out, but, Dr. Appleton, the documents that
13 were being pulled out of the library at exactly the same time
14 that Kendrick was writing, Kendrick Wells was writing his
15 memo, again, were those documents retained or were those
16 documents destroyed?

17 A. They were retained.

18 Q. How long has this issue been out there and been the
19 subject of litigation, these famous Janus studies, five years?

20 A. Probably more like six, five or six years.

21 Q. You were shown this document here about all this routing
22 of documents to lawyers and you testified that you can't
23 imagine from the scientist's point of view why there would be
24 any necessity of having reports go to the lawyer, do you
25 remember that?

page 3631

page 3632

1 A. Yes.

2 Q. Did counsel show you as he pulled all these documents the
3 documents that indicate how long this procedure actually was
4 in place?

5 A. No.

6 Q. Did he show you documents indicating that as of April
7 1985 memos were being written saying that the document
8 procedure would change?

9 A. No.

10 Q. You testified, I think you mentioned that there had been
11 actually an analysis and review done to determine whether the
12 documents that were sent from England actually got to B&W and
13 stayed in B&W, the research reports. I want to offer into
14 evidence -- is this a summary sheet that relates to that
15 audit?

16 A. Yes.

17 MR. BERNICK: I want to offer in GR 001050.

18 THE COURT: Admitted.

19 Q. Are these demonstratives, that is DEM 007196, 007197,
20 997194 and 007198 all of which indicate out of all the reports

21 that were sent, how many of them actually are still in the
22 library today?
23 A. Approximately 95 percent of them.
24 Q. If we focus on the period of time that's covered by these
25 memos that were being written about routing, does the

page 3632

page 3633

1 percentage go up even higher?
2 A. Yes, it is more like 99 percent.
3 Q. Is there any pattern for the ones that are very old and
4 missing, is there any pattern of subject matter that indicates
5 somehow particular subjects were off limits and the reports
6 shouldn't be kept, anything like that?
7 A. No, and as you would imagine, out of thousands of reports
8 received over the years, sometimes they slip through the
9 cracks and some turn up missing. We've looked at the ones
10 that are missing, the titles and they don't reflect any
11 particular pattern, they don't reflect particular studies or
12 biological activity or smoking and health related subjects.
13 They span a random range of topics.
14 Q. There are questions that were asked of you about think,
15 you know, how many documents do you want to create and the
16 like, to your experience has being careful about what's being
17 written to make sure that it's accurate, has that had any
18 effect whatsoever on your ability to do good science?
19 A. No, my experience is scientists have had the discretion
20 to write and to conduct studies and report those studies as
21 they see fit and they have final word on how that's done.
22 Q. Questions were asked of you about the position -- your
23 position on causation and you were asked for some of the
24 testimony that you gave, I think it was in August of 1997 and
25 whether you came out and said cigarettes cause disease in

page 3633

page 3634

1 1997, do you recall that?
2 A. Yes, I recall that.
3 Q. Do you recall that -- let me just ask you, Dr. Appleton,
4 we heard from Mr. Brookes yesterday about how when he came on
5 board in 1995 he wasn't happy with the company's position on
6 causation and he started a process that began change?
7 A. That's correct.
8 Q. Okay. Were you personally involved in that process,
9 Dr. Appleton?
10 A. Yes, I was.
11 Q. Were you one of the scientists that Mr. Brookes went to
12 for advice on what the science was and what the position
13 should be?
14 A. Yes.
15 Q. Okay. As time went on during the same period of time
16 were you also being asked to testify, sometimes voluntarily,
17 sometimes not so voluntarily?
18 A. Yes.
19 Q. Okay. As your own thoughts evolved in this area did your
20 testimony evolve?
21 A. Yes, it did.
22 Q. Let's take a look at what you said in not just this year,
23 not just last year and not -- the spring of 1998, this is the
24 Minnesota trial, line 20 of page -- a very long trial, 12,293,
25 line 20:

page 3634

page 3635

1 I can tell you what our position is. We do not
2 say -- we do not deny that smoking causes disease.

3 "Question: You don't say that smoking causes
4 disease, do you?
5 "Answer: We say that smoking may cause disease. I
6 assume based on the epidemiology that it does.
7 "Question: You assume it does?
8 "Answer: I assume it does based on the
9 epidemiology, yes."
10 Was that or was that not reflecting your good faith
11 effort to reconsider this issue and come up with your own
12 views of what the truth of the matter was?
13 A. Yes, it was.
14 Q. Finally, we know, Mr. Appleton, that no one can know
15 everything, you've only been at the company since 19 --
16 A. '91.
17 Q. 1991. We've asked you, others have asked you to go back
18 and take a look -- let me just ask you, from time to time has
19 your top management asked you to go back and take a look at
20 particular issues and particular documents?
21 A. Yes, of course.
22 Q. When you do that is there any way that you can consider
23 and understand and deal with every single document that a
24 lawyer might find out of millions of pages of documents that
25 have been produced?

page 3635

page 3636

1 A. No.
2 Q. Okay. What is your approach when you're asked to take a
3 look at the history of an issue, rather than parsing through
4 each and every page which you can never do, what is your own
5 approach, what is your test for what actually took place?
6 A. My test is looking at what actually happened and that can
7 be reflected in several ways. One is what reports exist on
8 research that was done or on activities that took place or if
9 it is a product related matter, what does the product itself
10 say. For example, if there's an allegation that we're adding
11 ammonia to increase the pH, what actual measurements on the
12 product show. So I'll look for data to substantiate a
13 particular claim, I won't rely on suggestions or concerns or
14 beliefs expressed in memos. What I ultimately look at is what
15 did the company do.
16 Q. What did the company do, what research did the company
17 do?
18 A. We did a great deal of research both on the product in
19 terms of trying to modify it, that research began in earnest
20 in '62 and proceeds through today.
21 Q. Did even one question, even one question that was asked
22 of you on cross-examination change anything of what you told
23 this jury, not about what the lawyers thought about, what they
24 said about, what they worried about, what they fretted about
25 but did any of those questions address or change your analysis

page 3636

page 3637

1 of what got done?
2 A. No.
3 MR. BERNICK: That's all I have.
4 THE COURT: Be very brief.
5 MR. WESTBROOK: Just three very brief.
6 RE-CROSS-EXAMINATION
7 BY MR. WESTBROOK:
8 Q. Number one, have you ever seen the draft of Dr. Day's
9 medical article before the lawyers edited it?
10 A. A draft --
11 MR. BERNICK: Objection, Your Honor, that assumes

12 facts not in evidence. There was a review by TRC lawyers,
13 there is no evidence that that document was ever edited by a
14 lawyer.

15 THE COURT: Reframe it in the light of that comment.
16 Q. Dr. Appleton, according to the document the lawyers were
17 going to review Dr. Day's article; have you ever seen a copy
18 of the article as it was written before a lawyer reviewed it,
19 if it took place?

20 A. The only thing I've seen is the final published report as
21 it appeared in the public literature.

22 Q. You testified about research reports and counting up what
23 reports were there and what reports weren't there. In doing
24 that review did you have the reports that had been moved to
25 storage, moved back to the library?

page 3637

page 3638

1 A. Yes, those were included as part of the audit.

2 Q. Okay. And you were asked about your testimony as it
3 evolved on causation; from '97, may or may not cause cancer;
4 from '98, based on the epidemiology you assume it does; in
5 2000 you admitted it caused cancer.

6 Is it true, Dr. Appleton, that your testimony on the
7 stand has always been whatever Brown & Williamson's company
8 position has been?

9 A. I don't know if it has always been or not.

10 Q. Have you ever contradicted the Brown & Williamson
11 official position in your testimony on causation to your
12 knowledge?

13 A. I don't really know if there is an official position or
14 what it is, I can only tell you what my view has been, that's
15 what I know.

16 Q. To your knowledge, has your testimony on causation ever
17 been any different from the company position?

18 A. I don't know if it has or hasn't.

19 MR. WESTBROOK: Nothing further, Your Honor.

20 THE COURT: All right. Thank you, sir. Next witness
21 please.

22 MR. LOMBARDI: Yes, Your Honor, we call Richard
23 Carchman.

24 (Witness sworn by the Court.)

25 R I C H A R D C A R C H M A N,

page 3638

page 3639

1 having been first duly sworn, was examined
2 and testified as follows:

3 THE COURT: Give your name please.

4 THE WITNESS: My name is Richard Carchman,
5 C A R C H M A N.

6 THE COURT: Thank you. You may sit down.

7 MR. LOMBARDI: Good afternoon, ladies and gentlemen.

8 DIRECT EXAMINATION

9 BY MR. LOMBARDI:

10 Q. Good afternoon, Dr. Carchman.

11 A. Good afternoon.

12 Q. You're here at the request of Philip Morris; is that
13 correct?

14 A. Yes.

15 Q. Are you currently employed by Philip Morris?

16 A. No.

17 Q. Were you employed by Philip Morris for a period of
18 time?

19 A. Yes.

20 Q. For how long were you employed by Philip Morris?

21 A. Approximately ten years.
22 Q. Okay. What position did you hold at the time you left
23 Philip Morris?

24 A. I was a vice president in Research, Development and
25 Engineering.

page 3639

page 3640

1 Q. And you retired; is that right?

2 A. Yes.

3 Q. Let's tell the jury a little bit about your background.
4 Where are you from originally?

5 A. From New York.

6 Q. Okay. And where did you go to college?

7 A. Just down the street at Long Island University.

8 Q. Did you take a degree there?

9 A. I received a bachelor's degree in biology and chemistry
10 with a minor in philosophy.

11 Q. When did you graduate?

12 A. 1966.

13 Q. Did you continue your education after graduating from
14 Long Island University?

15 A. Yes.

16 Q. What did you do?

17 A. I went to Downstate Medical Center, State University of
18 New York in Brooklyn and I went for my doctorate in
19 pharmacology.

20 Q. And when did you obtain your doctorate?

21 A. 1972.

22 Q. Okay. Now, sometime during your educational background
23 did you start research work?

24 A. Yes.

25 Q. What time did you start it and what kind of research work

page 3640

page 3641

1 was it?

2 A. While I was an undergraduate in 1964 I worked at
3 Columbia University Institute for Cancer Research as
4 part of the College of Physicians and Surgeons from 1964
5 to 1968.

6 Q. What was the nature of the research you did there?

7 A. It was doing fundamental cancer research in terms of
8 causes of that disease and some potential drugs that were
9 being considered for use.

10 Q. Okay. Now, after you finished your work on your
11 Ph.D. did you continue your educational work beyond that
12 time?

13 A. Yes.

14 Q. What did you do?

15 A. I applied for and received a fellowship at the National
16 Cancer Institute at the National Institutes of Health in
17 Bethesda, Maryland.

18 Q. How long did your work on your fellowship?

19 A. From 1972 to '74 I was in the laboratory of molecular
20 biology at the National Cancer Institute.

21 Q. What were the nature of your duties at the National
22 Cancer Institute?

23 A. It was evaluating and looking at molecular mechanisms
24 associated with cancer cause.

25 Q. Okay. You finished up at the National Cancer Institute

page 3641

page 3642

1 in 1974?

2 A. Yes.

3 Q. What did you do then?
4 A. I then took a faculty position at the Medical College
5 of Virginia in Richmond Virginia, that's a state medical
6 school. It is part of Virginia Commonwealth University in
7 Richmond.
8 Q. Did you begin teaching courses there?
9 A. Yes.
10 Q. What courses did you teach at the Medical College of
11 Virginia?
12 A. Basic courses in pharmacology, toxicology, cardiovascular
13 pharmacology, cancer chemotherapy, chemotherapy in general not
14 just related to cancer, some courses that touched upon
15 chemical interactions.
16 Q. What is the Massey Cancer Center?
17 A. When I was there it was a comprehensive cancer center
18 funded by the National Cancer Institute.
19 Q. Is it part of the Medical College of Virginia?
20 A. Yes.
21 Q. Did you have a role at the Massey Cancer Center?
22 A. Yes, I was the associate scientific director of the
23 center.
24 Q. What were your duties as the associate scientific
25 director?

page 3642

page 3643

1 A. The comprehensive cancer center was funded to bring
2 together clinicians interested in research and researchers
3 interested in impacting clinical studies, so it was bringing
4 together M.D.s, Ph.D.s, oncologists, surgeons and
5 pharmacologists, toxicologists, immunologists to see if in
6 collaboration we could enhance our understanding and
7 potentially treatment of individuals with these kinds of
8 diseases.
9 Q. These kinds of diseases meaning cancers; is that
10 correct?
11 A. Yes.
12 Q. How long did you stay at the Medical College of
13 Virginia?
14 A. About 15 years.
15 Q. So that takes us up to about 1988, '89; is that right?
16 A. Yes.
17 Q. Okay. During your time at the Medical College of
18 Virginia did you have any associations with government
19 research projects?
20 A. Yes.
21 Q. Could you run through with the jury a few examples of the
22 type of research you did with government entities while you
23 were at the Medical College of Virginia?
24 A. About 80 percent of the research I did was funded by the
25 U.S. federal government, either institutes within the National

page 3643

page 3644

1 Institutes of Health or by the Department of Defense,
2 Department of Army, and the other twenty percent were funded
3 by pharmaceutical companies, the American Cancer Society and
4 the American Heart Association.
5 Q. Was there a general theme to the type of research you
6 were doing?
7 A. Yes.
8 Q. What was that theme?
9 A. It was trying to develop a fundamental understanding of
10 the signals that are important in cells, that control cell
11 growth and cell differentiation impact on things like cancer.

12 Q. Cancer has to do with cell growth and differentiation of
13 cells; is that right?

14 A. Yes.

15 Q. Now, how is it that you came to Philip Morris from the
16 Medical College of Virginia?

17 A. Philip Morris is just down the road from the medical
18 school and the scientists in Philip Morris R & D would take
19 courses at the university and at the medical school, some of
20 them even went and received advanced degrees and so I had an
21 opportunity over the years to instruct, teach and actually
22 train some of these scientists and it was through that
23 relationship or those relationships that I started to get
24 involved with the research and development scientists at
25 Philip Morris.

page 3644

page 3645

1 Q. When was your first involvement with the research group
2 at Philip Morris?

3 A. Well, aside from occasionally providing them with
4 biological material that they needed for some of their work,
5 they were doing some cellular work, I happened to be doing the
6 same type, one of the scientists enrolled into the graduate
7 program and he eventually came into my laboratories and was my
8 student and he passed all his courses, he did his original
9 research, he defended his thesis, he graduated and went back
10 to Philip Morris, that was a fellow named Jim Charles and Jim
11 and I became very good friends over the years and it was that
12 friendship helped this relationship grow some more.

13 Q. Did you actually do some consulting work for Philip
14 Morris before becoming employed full-time there?

15 A. Yes.

16 Q. Explain to the jury what that involved?

17 A. Jim graduated in '80, '81 and around 1985, 1986 he
18 called me up and he asked me if I would be interested in
19 looking at some safety evaluations that R & D was doing for
20 some of the ingredients that they were adding to the tobacco
21 in the manufacture of cigarettes, there was some new federal
22 legislation the company was complying with and he wanted to
23 know if I could help and I said yes.

24 Q. Okay. Now then, you've said that in 1989 you actually
25 left the Medical College of Virginia and were employed by

page 3645

page 3646

1 Philip Morris; is that right?

2 A. Almost, almost correct.

3 Q. Okay, explain what's incorrect about that?

4 A. In 1988 during one of our lunches Jim asked me if I would
5 think about leaving the medical school and come work at Philip
6 Morris and I then took that, went back home, spoke to my wife,
7 spoke to my chairman, spoke to my dean.

8 After some deliberation I went back to Jim and I
9 said I'm going to take a year's leave of absence, a
10 sabbatical, come to work at Philip Morris and if I don't
11 like it or you don't like me, I can go back to the medical
12 school.

13 Q. What was the reason from your point of view for taking a
14 year's sabbatical rather than just joining Philip Morris
15 full-time?

16 A. There were two reasons; one, I was a basic scientist,
17 never really had any industrial big company experience, and
18 the second was Philip Morris was a tobacco company -- is a
19 tobacco company.

20 Q. Okay. Now, what did you do during your year's sabbatical

21 at Philip Morris?
22 A. I spent a lot of time speaking to people, listening,
23 watching, asking questions, trying to find out whether they
24 were serious. I mean some of the scientists that I knew were
25 nice people and they were good scientists and my questions to

page 3646

page 3647

1 myself really were how serious was the company about some of
2 the things they were doing.
3 Q. And did you come to any conclusions about that?
4 A. At the end of my sabbatical I did, yes.
5 Q. What were your conclusions?
6 A. I went back to my chairman and I thanked him very much
7 for the opportunity and I went over to work for Philip Morris.
8 THE COURT: All right, now I think this is a good
9 point to break.

10 Ten o'clock tomorrow please.

11 (Jury leaves courtroom.)

12 THE COURT: You step down, Doctor, thank you.

13 MR. BERNICK: Your Honor, we'd like to offer the
14 exhibits that we used with Dr. Appleton during the course of
15 today's proceedings and I've got them listed here.

16 THE COURT: Has the plaintiff checked this?

17 MR. WESTBROOK: Your Honor, we'll get that, these are
18 the ones that were just used with Appleton today. We'll get
19 that put together from the transcript tonight so we have an
20 accurate record.

21 MR. BERNICK: We now must have in excess of 70 or 80
22 exhibits that have been proffered.

23 THE COURT: We're way behind on that. This is Court
24 Exhibit -- let's see, Court Exhibit --

25 MR. BERNICK: 39.

page 3647

page 3648

1 THE COURT: I'll return this to you but I would like
2 to get some of these in the record.

3 MR. WESTBROOK: We will, yes, Your Honor, we'll get a
4 look at that overnight and get our list as well.

5 THE COURT: Thank you.

6 MR. BERNICK: Thank you.

7 THE COURT: You want to be available for nine for
8 problems tomorrow or what?

9 MR. WESTBROOK: 9:30 might be sufficient, Your Honor.

10 THE COURT: All right, 9:30 for you.

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12 (Proceedings adjourned as above set forth.)
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I N D E X

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2 REDIRECT EXAMINATION

3 BY MR. BERNICK:
3614Defendant's Exhibit GI000174..... 3477
4 Defendant's Exhibit GI000146.....
3493Defendant's Exhibit 8077..... 3604
5 36, 37 and 38..... 3452
6 S C O T T A P P L E T O N..... 3453
7 DIRECT EXAMINATION (Cont.'d)BY MR. BERNICK:
..... 3454
8 GM300007.....
3460GM000046, TG000018, TG000017 and TG000016..... 3460
9 GJ000241.....
3462CROSS-EXAMINATION
10 BY MR. CORRIGAN:.....
3555Exhibit GG300010..... 3556
11 CROSS-EXAMINATION
12 BY MR. WESTBROOK: 3556GN
100682, GN 100683..... 3621
13 GR 001050.....
3632RECROSS-EXAMINATION
14 BY MR. WESTBROOK: 3637
15 R I C H A R D C A R C H M A N..... 3638DIRECT
EXAMINATION
16 BY MR. LOMBARDI:
3639Plaintiff's Exhibit 44084..... 3605
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25 HOLLY DRISCOLL, CSR OFFICIAL COURT REPORTER
page 3649